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Local Treatment of Nasal Allergy*

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I believe most of us are in accord with the view that nasal allergy is an abnormal local response to extrinsic or intrinsic stimuli. For some reason not thoroughly understood the mucous membrane of the nose and to some extent that of the paranasal sinuses become involved. The symptoms and signs vary somewhat depending upon whether the condition is seasonal or perennial but usually are characterized by recurrent attacks of sneezing, watery discharge without constitutional symptoms of acute cold, presence of a pale water-logged mucous membrane with eosinophiles in large numbers.

There are three therapeutic approaches available, (1) elimination of offending allergen, (2) general desensitization, (3) local desensitization. For the first treatment the allergen must first be isolated and identified as the offending one. For instance, if a patient should have a nasal allergy due to animal dander, giving away the cat or dog would solve the problem at least temporarily. I say temporarily because it is known that allergic individuals are prone to lose sensitivity to certain things and acquire it for others. If, on the other hand, it is found after exhaustive tests that the patient is sensitive to ragweed, bermuda, and elm, it is not ordinarily feasible for him to move entirely away from these factors. This leads us to the other avenues, either or both of which offer possibilities of relief.

Desensitization: I am sure this method of treatment rightly overshadows the other two types in the treatment of seasonal nasal allergy, or hay fever. A great many people are made comfortable throughout the ragweed or elm season by graduated doses of pollen extract, their improvement being evidenced by the fact they return to the allergist regularly for treatment. For the perennial type of nasal allergy, desensitization does not appear to be as valuable as in the seasonal. The reason is of course obvious. The offending allergen for the seasonal type can usually be quickly identified and is more apt to be single or few in number, while in the perennial type allergens are usually multiple, often both extrinsic and intrinsic factors being involved, thus making it more difficult both to identify and to desensitize the individual. I do not mean to imply that good results are lacking in the desensitization treatment of perennial nasal allergy, because some cases show striking relief of symptoms after a short period of treatment; but it is my opinion that results are not uniformly as good as in the seasonal hay fever.

Local desensitization: As is commonly understood, this means raising the sensitivity of the mucous membrane of the nose to as near a normal level as possible. There are a great many different methods used with the same purpose in view, and the fact that there are so many proves that none is entirely satisfactory. The result desired in each case is fibrosis of the submucous tissue with disappearance of the lymphocytes and eoseniophiles. A few of the methods are as follows:

(1) Cautery. A cherry red cautery is used to burn a line or series of lines along the inferior turbinate and sometimes lightly on the tip of the middle turbinate.

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The destruction of tissue is carried as deep as the periosteum.

(2) Diathermy. Some feel that coagulation by this method produces as good results without as much reaction.

(3) Chemical agents topically applied; strong solutions of silver nitrate, phenol, trichoracetic acid, and copper are the most commonly used.

(4) Sclerosing solutions to be injected in submucosa, such as alcohol, quinine and urea, etc.

(5) Zinc ionization as proposed by Warwick[1]. There has been a great deal of discussion as to the value of this procedure. Hollender and Fabricant[2] believe that evaluation of the procedure should be based entirely on clinical results, and describe histologic studies of biopsies of nose which they believe are insufficient to reveal the true condition of the nose. They are of the opinion that the clinical results obtained warrant continued use of ionization in many cases. On the other hand Rowe[3] believes that no better results are obtained than with simpler methods, and that discomfort after ionization is greater.

I have recently used ionization on three patients, two with seasonal spring hay fever and one with the perennial type. Both the seasonal cases showed 85-90 degrees cessation of all symptoms within two days. The third or perennial case showed no improvement. The dosage was 15 millimiperes for 12 minutes and the reaction was negligble. The zinc jelly was used. I understand some of the men in Tulsa have used this procedure a great deal and would appreciate some response from them on their ideas regarding it.

(6) Repeated small applications of some escharotic in the nose. Very often if one will gently apply a little Trichloracetic acid or phenol to the tip of the middle turbinate, the anterior half of the inferior turbinate and a small area of the anterior portion of the septum for several times once or twice weekly mild cases of sneezing and stuffiness of the nose will be relieved. No local anesthetic is required and the burning lasts for less than a minute. It can be used even in children that cooperate.

Description of local treatment would not be completed if treatment of complications of nasal allergy were not included. Polyps: These may be seen as a result of chronic nasal allergy or chronic sinus infection, most often with the former. The associated symptoms and signs are required to differentiate the etiology. However, when present from any cause it appears to be an irreversible process and surgical removal is required. Following removal an allergic management is indicated for the allergic cases and further sinus therapy for the infectious type.

It is my opinion that local treatment of nasal allergy is being neglected. Many mild cases are seen in our offices who do not show sufficient trouble that they will go through an allergic workout to find the cause of their trouble but would be benefited by a few local treatments. Some patients who have not obtained relief under allergic management will do so with local treatment. Very often local and general desensitization together will produce results when either would fail alone.

In closing, I wish to emphasize, (1) close cooperation between the Rhinologist and Allergist, and (2) local treatment in selected cases.

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Exstrophy of the Bladder*

An Experimental and a Clinical Study of Cases

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During the past five years we have found a record of eighteen cases of exstrophy of the bladder in this state. (See chart) There are, no doubt, others that we do not know about. We have seen all of these cases except two. Because of the fact that there is apparently a fairly large number of these cases for which no treatment was being offered, our interest was stimulated. We had had no experience in operating on such cases. The cases ranged from the age of 48 hours to

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35 years. (See table of summary of cases) It is stated that exstrophy of the bladder occurs once in every thirty thousand to once in every fifty thousand births.[1]

It is, in its anatomic configuration, a defect in the anterior wall of the bladder. In the complete case there is a non-fusion of the pubes with an absence of the symphysis. In the male there is usually a short penis with a complete epispadias, and in the female there is complete lack of fusion of the mons, labia, clitoris, and the anterior urethral wall. The internal genital organs are not affected. The dome of the bladder and the trigone are herniated when the patient is in the upright position. The ureteral orifices are visualized as slits and spout urine intermittently. The infra-umbilical fascia is defective and usually there is a wide diastasis recti. These patients, as a rule, walk with a waddling gait. The gait is fairly characteristic of this condition.

Wyburn[2] describes the embryological origin of the defect as a "mesodermal deficiency particularly of the secondary mesoderm, arising from the hind end of the primitive streak" following which there is impaired development of the muscular coats of the bladder, symphysis pubis, the external genitalia, and the infra-umbilical portion of the abdominal wall.

The medical profession has for many years recognized that short-circuiting of the urine is indicated in exstrophy of the bladder. As early as 1850, Dr. Simon had an unsuccessful outcome following transplantation of ureters into the bowel for exstrophy.[3] In 1894, Maydl transferred the trigone of the bladder, with the ureters attached, into the bowel.[4] Dr. Martin, in 1899, reported operations on seventeen dogs and three human beings.[5] He stated that his success was partial. In 1886, Balona and Edwards brought the ureter out through the skin in the loin region.[6] This was reported as successful. Dr. Coffey clarified the technique during a great many years of study and experiments and has described about three different ways in which to do the operation. Higgins, more recently, has modified the Coffey operation and has reported a rather large series of cases for both exstrophy and carcinoma of the bladder. The principal contributors to this work are: Beer, Mayos, Henman, Counsellor, Higgins, Kirwin, Mathe, Ferguson and Pathe, Wodhaus and Carobba, and others.

Before attempting to do any of these different described procedures on human beings, it was thought best to do, first cadaver dissection — both preserved cadaver and fresh cadaver; and to do experimental operations on dogs. At the medical school it was found fairly easy to study sixteen cadavers at the time medical students had the pelvis exposed thoroughly. The principal advantage gained from this study was to familiarize ourselves with the blood supply of the

TABLE OF CASES OF EXSTROPHY OF BLADDER

Case No.	Sex	Age	Treatment	Outcome	Associated Anomalies
1.	male	35 yrs.	none	no change	none
2.	female	4 yrs.	No surgery suggested because of pyelitis	semi-invalid	none
3.	female	11 yrs.	refused surgery	no change	none
4.	male	4 yrs.	Attempt at closure of bladder (by flaps)	some improvement	epispadias
5.	female	12 yrs.	none	no change	none
6.	male	2 mos.	none	no change	none
7.	male	1 mo.	none	no change	none
8.	male	48 hrs.	transplant	expired	none
9.	female	11 yrs.	transplant	expired	none
10.	female	18 mos.	none	no change	prolapse of rectum
11.	male	11 yrs.	bi-lateral transplant of ureters & cystectomy	recovery	Bi-lateral inguinal hernia. Bi-lateral cryptorchidism.
12.	female	17 yrs.	bi-lateral transplant of ureters & cystectomy	recovery	none
13.	male	3 yrs.	no surgery advised because of rectal prolapse	no change	Bi-lateral cryptorchidism. Bi-lateral inguinal hernia. Prolapse of rectum. Epispadias.
14.	female	4 days	none	no change	left club foot
15.	male	13 days	none	no change	none
16.	male	5 mos.	none	no change	none
17.	female	1 mo.	none	no change	none
18.	male	14 mos.	none	no change	Bi-lateral cryptorchidism

ureters and its anatomical relation to the bowel. The next preliminary work was the performing of the operation in detail on fresh cadavers. This was possible at the University Hospital during the course of routine post-mortem examinations. The operations were done on about ten different bodies. After reading the different methods in the literature, it was decided to familiarize ourselves with the Coffey operation,[7] the Higgins operation[8] and the Lyman-Farrell technique.[9] Twelve dogs were operated on, using the Higgins technique in two, the Coffey operation in two, doing one side at a time and the remainder were done using the Lyman-Farrell procedure.

RESULTS OF EXPERIMENTAL SURGERY

1. One dog died following intravenous anesthesia within twelve hours.

Fig. 1, 2, 3) Under spinal or general anesthetic, a mid-line incision is made in the lower abdomen. The bowel is packed off with the patient usually in trendelenberg position. The recto-sigmoid is identified and inspected as to its mobility. One visualizes a point of attachment for the right ureter and one for the left ureter at a future date. The peritoneum is picked up at the brim of the pelvis, split for a distance of about three inches and the lower end of the right ureter is elevated. The site of implantation on the bowel is brought over toward the ureter. A longitudinal incision is made in the serosa of the bowel, the muscle split and the submucosa exposed. The length of this bed in the bowel should be approximately two inches. The ureter is next anchored by a row of fine black silk on a small needle to the

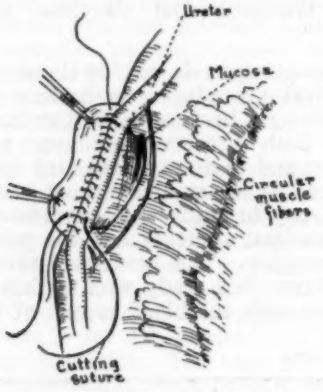


Fig. 1. Farrell Lyman Technique, showing a posterior row of apposition stitches placed. Cutting suture in position.

Fig. 2. Farrell-Lyman Technique. Anastomosis completed.

Fig. 3. Farrell-Lyman Technique. Severed stump of the ureter buried in the bowel wall.

2. One dog died as a result of infection in the site of implantation. (Coffey technique)

3. One dog died as a result of failing to pass the needle through the mucosa of the ureter. (Lyman-Farrell technique) This led us to use a catheter in cases of exstrophy so as to make certain that the needle perforated the mucosa. Catheterization is extremely easy to do in cases of exstrophy.

4. One animal had a large wound infection without any interference or detriment to the implantation.

The technique of Lyman-Farrell operation is based on the old Eck-fistula operation (1877)[10] for the anastomosis of blood vessels.[9] It is to be remembered that Coffey pointed out that when a duct enters a hollow viscus the entrance is in an oblique direction so that the muscular action of the viscus wall acts as a check valve to prevent return flow. The technique used, then, is as follows: (See bowel. We employ a running suture to accomplish this. A vein clamp is placed on the ureter above the site of the anastomosis. A strong black silk suture on a short curved needle is then placed into the lumen of the ureter and allowed to come out approximately 1 cm. from the entrance of the needle. We employ a ureteral catheter at this stage so as to make certain of the progress of the needle. After the suture comes out of the ureter, it is then reversed and passed into the lumen of the bowel and out of the bowel at the same level and about the same distance that it traversed the ureter. This suture is then covered with sterile gauze and the anterior fixation suture is placed to roll the ureter into the bed prepared for it, and attach it throughout the length of the bed. The two layers of suture is not unlike the fixation employed in a posterior gastro-enterostomy. Next, the silk suture for making a fistula is

picked up and by having the assistant steady the bowel and the ureter, the operator uses the silk suture as a saw to cut or establish a fistula between the ureter and the bowel by a sawing motion of the black silk suture. The suture is then discarded. The vein clamp is now removed from above the anastomosis and placed below the anastomosis. This allows one to inspect for any leakage at this time. If there is no leakage, the next step is to doubly ligate the lower end of the ureter after the catheter is withdrawn, divide the ureter and bury the severed end under a portion of the serosa of the bowel. The serosa is next closed over the site of the anastomosis. The peritoneal leaves are then mobilized and if possible, the two edges are brought over the entire site of the anastomosis. If this is not practical, the omentum is simply brought down and tacked over the field of operation. The abdomen is then closed in layers without drainage.

Ladd and Lanem[11] report several cases from Boston and give five requirements of the procedure, as: (1) a three stage operation, (2) transplantation of the right ureter, because of its relative inaccessibility to the colon, and then the left in two to four weeks, (3) transperitoneal route without the use of guides or retention catheters, (4) no drains left in the peritoneum, and (5) removal of the bladder as soon as bossible. These workers believe three to five years is the ideal age for this work. In this series of cases the workers used a modification of the Coffey operation without the use of guides or catheters.

PRE-OPERATIVE CARE

The patient should be admitted to the hospital several days prior to the operative procedure and a thorough study of the patient begun. These cases should have complete blood studies, including a complete blood chemistry. Intravenous pyelograms should be done to determine: (1) Size and position of the kidney. (2) Size and course of the ureter.

If the patient is found to be in condition to permit surgery, the lower bowel is cleansed several days before by daily administrations of magnesium sulphate or castor oil in small doses, and daily colonic flushings. The day before surgery, the purging is omitted and the lower bowel cleansed by enemas. This is repeated the morning of surgery. Fluids and glucose are given in large amounts to the patient the evening before operation.

POST-OPERATIVE CARE

General post-operative care proceeds along lines for other abdominal and pelvic surgery. The patient remains in bed for ten days to two weeks. Diet is usually gradually increased. Since the ultimate success of the anastomosis depends on immediate function of the uretero-sigmoid fistula, it is well that some diuretic be given immediately. We employed a colon tube in the rectum immediately after operation, removed every three hours. Saline and glucose intravenously was used to increase kidney function and to maintain the fistula.

COMPLICATIONS

The most common complications encountered in the human cases were: (1) a marked ileus following the first operation. At the second stage, very little or none was noted, (2) edema of ureter with slowing of urinary output. We encountered no hemorrhage in either case. (3) Later complications were a mild degree of hydronephrosis and I believe some degree of pyelitis. Pyelograms were taken to demonstrate this condition. In each case urinary antiseptics and proper bowel elimination resulted in a disappearance of symptoms for the time.

REPORT OF CASES

CASE I.

Z. R., age seventeen, white female. History of congenital exstrophy and epispadias with no attempt at repair. The girl had gone to school for a part of the time, but had not been able to attend regularly and had not yet entered high school. She was fairly clean, but was suspicious of all questions and attempts at examination.

Menses: Onset at 15, a regular 28 day cycle.

Physical Examination: Revealed a white female, seventeen years old. There was normal development for this age and secondary sex characteristics present and normal for the age. Physical examination revealed no pathology other than the deformities associated with the exstrophy. There was absence of the umbilicus with a complete lack of fusion of the anterior bladder wall with a herniation of the dome and trigone of the bladder. On close inspection, the ureteral orifices could be seen to spout urine intermittently. There was a complete cleft of the mons, labia, clitoris and the anterior wall of the uretha. The vaginal orifice was normal and placed in its normal position. The gait was characteristic of pubic non-fusion.

Laboratory: Blood studies were normal, including a normal blood chemistry. NPN 26 mg percent, uric acid 2.7 mg percent, blood Kline negative.

X-ray: Films, after the injection of Neo-Iopax, show normal filling of the right and left ureters and kidney pelvis. A separation of the right and left pubic bones of five to six inches was visualized.

After thorough preparation, a left ureterosigmoid anastomosis was done on November 30, 1938, using the Lyman-Farrell technique. The post-operative course was relatively

Case No. 1. Fig. A. Photograph of bladder before admission.

Case No. 1. Fig. B. Final photograph with bladder dissected and defect covered with skin skin graft. Dressing covers donor site.

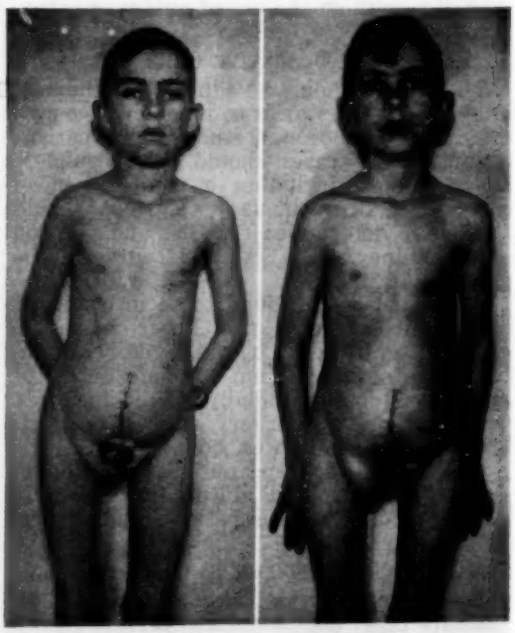
smooth, the highest temperature on the second day, post-operative, was 101.2 degrees. The patient was discharged from the hospital on the twenty-first day, post-operative. She returned to the hospital four weeks later for a check-up. At this time NPN was 24 mg per cent and the uric acid 2.9 mg per cent. X-ray showed a mild dilation of the left kidney pelvis and ureter. The herniated bladder was considerably drier than previously, with an area of atrophy around the left orifice. She was readmitted on March 6, 1939. X-ray and laboratory studies revealed no change except for slight progress in the hydronephrosis. On March 14, 1939, a right side uretero-sigmoid anastomosis was done using the same technique. The post-operative course was uneventful except for two or three days of vomiting. Two weeks later the bladder was excised and a small skin graft was used to cover the defect. Six weeks after the last anastomosis the blood chemistry was unchanged and the patient was discharged from the hospital. The patient was lost sight of for about sixty days, when she returned complaining of malaise and fever with pain in both costo-vertebral angles. She was admitted to the hospital and the NPN was found to be 40 mg per cent. X-ray showed considerable progress in the hydronephrosis of the left kidney. The patient had lost weight and had very little appetite. She was given vitamin B and a urinary antiseptic as well as daily rest periods. In a few days the fever had subsided and she was able to be up and around the ward. She gained considerable interest in her personal appearance. She was discharged from the hospital and was last heard of one year after her surgery when she reported that she had started to school and had gained twenty pounds in weight. She stated that she was employed in a store as a clerk.

CASE II.

J. L. S., age eleven, male. Admitted to the hospital on July 29, 1939, with a history and physical examination similar to that of the above patient. This patient had been examined by the late Dr. Coffey when the patient was a few months old. No operation had been done.

Laboratory: The blood studies were normal. NPN 31 mg percent, uric acid 15 mg percent.

X-ray: Showed a normal size and position of the kidney pelvis and ureters. The right ureter was anastomosed to the bowel on August 5, 1939, using a modification of the technique described by Higgins. The ureter was not ligated below the fistula. The



Case No. 2. Fig. A. View of patient before excision of bladder.

Case No. 2. Fig. B. View of patient after excision of bladder.

post-operative course was rather stormy, with a paralytic ileus which lasted for about ten days. Following this, recovery was rapid and the boy was discharged from the hospital on September 10, 1939. He was readmitted on November 1, 1939, and an attempt made at the second stage on November 11, 1939, but difficulty with the anesthetic prevented operative work. The second stage was done November 17, 1939, using the Lyman-Farrell technique. The post-operative period was uneventful. The bladder was removed on January 13, 1940, and at the same time the right lower ureter was ligated. Laboratory on January, 1940, showed an NPN 28 mg per cent and uric acid 1.2 mg per cent. X-ray revealed a mild dilation of the left preter. Final discharge from the hospital was on January 28, 1940. A recent check-up revealed a much improved patient with a marked weight gain and much improved mental attitude. This patient has a bilateral congenital inguinal hernia which will be repaired in the near future. He is attending school regularly..

Both of the above patients are able to retain urine in the bowel over a period of four to six hours during the day. Each of them sleep eight hours at night without disturbance.

CONCLUSIONS

Two cases of exstrophy of the bladder are reported as having been successfully operated. These cases are the first ones in our experience with exstrophy of the bladder. Both of them have a fairly comfortable existence and have gained much self-confidence. They had previously mentioned that life was no longer dear to them.

It is believed that the plan of Lyman-Farrell can be used in cases that can undergo such an operation. We have had no experience with infants and hence are rather inclined to allow these children to reach the age of three to five years before operative work is undertaken.

Since one man is certain to have a very limited number of such cases, it is recommended strongly that he do preliminary animal and cadaver surgery.

I realize that all the different methods have merit and each surgeon must choose the plan that he thinks will best suit his needs. These two cases are the first human cases that I know of that have been done by the Lyman-Farrell technique.

ACKNOWLEDGMENT

1. Due acknowledgment is given to the pioneers in this particular field of surgery.
2. I am grateful to Dr. R. M. Howard and Dr. R. U. Patterson for encouragement in this work, as well as the use of the experimental laboratory.
3. Dr. C. B. Taylor has been very helpful in giving me advice and guidance.
4. The Sisters of St. Anthony Hospital have been especially lenient in furnishing hospitalization for these patients.
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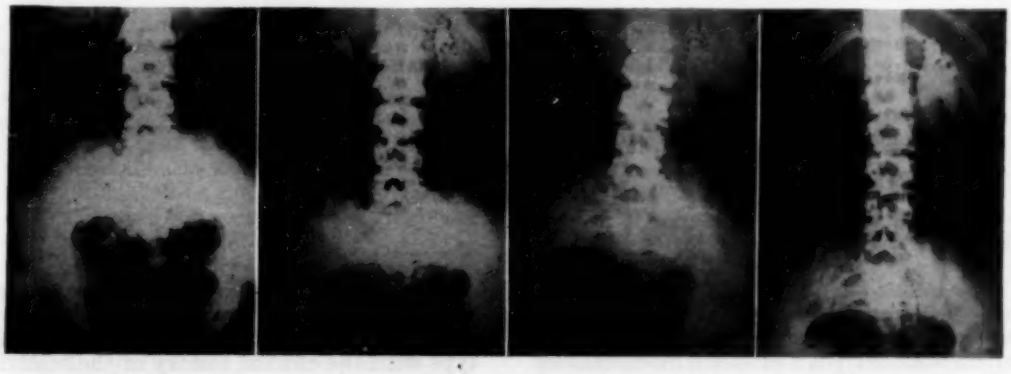

Case No. 1. Fig. 1. X-ray of pelvis showing wide separation at symphysis.

Case No. 1. Fig. 2. Intravenous pyleograms before surgery.

Case No. 1. Fig. 3. Intravenous pyleograms six months after surgery. Note beginning hydronephrosis.

Case No. 1. Fig. 4. Intravenous pyleograms nine months after surgery. Note advance hydronephrosis (left.) Patient has compensated for this condition.

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DISCUSSION

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Exstrophy of the Bladder

Higgins has estimated that there is one case of bladder exstrophy in every 30,000 births so that there are approximately 2,000 persons in the United States with this deformity, while 70 babies are born each year with this defect. Approximately fifty per cent die before they are ten years of age. Sixty-six per cent die before twenty.

When we consider the predicament of these unfortunates, there can be no question of the advisability of attempting to alleviate their condition. These miserable people are social outcasts because of the odor of urine that they carry with them always. In addition, there are frequently co-existing congenital deformities such as undescended testicles, cleft palate, spina bifida, epispadias, Hare lip or absence of the vagina. Absence of the pubic arch and the wide gap between the transverse rami of the symphysis give the pelvis a flattened appearance. This co-existing deformity produces a waddling gait that is very characteristic. I feel that there can be no question but that surgical intervention is not only justified but mandatory.

There has been some diversity of opinion about the time when surgical procedures should be adopted. Higgins believes, and I think rightly, that these cases should be operated on early, at any time after the third month. His principle criterion is the condition of the rectal sphincter. If it shows a firm grip on the examining finger he feels that the operation of transplanting the ureters can and should be done early.

Infants withstand surgical procedures well. Hare lips and cleft palates are done early. Operations for pyloric obstruction and for intussception are done without hesitation and with fairly uniform success. Therefore I feel that the transplantation of the ureters into the recto-sigmoid early in the infants life should be attempted. The virulent organisms that are found in later life are not so abundant in early life and the danger of a complicating peritonitis is lessened.

Dr. Kimball's technique is interesting and apparently feasible. The main point, of course, is that there must be free drainage of urine with no constriction where the ureter enters the bowel with the hope that a competent valve will be established.

The Diagnosis and Treatment of Malaria*

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The method of making an accurate diagnosis of the malarial infections is by the demonstration of the plasmodia in the blood, stained with Wright's or other modifications of the Romanowsky stain. It is possible in many instances to make about as certain a diagnosis on the clinical history, symptoms and physical findings as in any other disease. However, this applies only to the ordinary cases of malaria, especially the intermittent type with the clinical history of the malarial residence and previous attacks with the chill, fever and sweat. These cases need no discussion.

The three points in the diagnosis which concerns us most in the light of our present therapeutic knowledge is, first, the type or

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variety of the disease present. There are many of these described, but their classification is more or less arbitrary, and they are of very little practical value except in the pernicious types, where they may indicate whether heroic treatment is urgent or whether the usual routine is all that is necessary. These types are fortunately rare, and microscopical examination of the blood will make the diagnosis very much better than any clinical classification that can be made. When a large number of parasites are found in the blood, it is prognostically an unfavorable sign. When a number of them are found in a single erythrocyte, it is a very unfavorable indication, and we must prepare ourselves for immediate heroic measures if pernicious symptoms supervene. Unfortunately, many of these cases are so urgent that the situation does not afford time for hospitalization or microscopical examination, but require the immediate institution of all of our most heroic efforts if a fatal issue is to be avoided. Therefore, it behooves us as physicians to acquaint ourselves with these pernicious symptoms.

Second, we are concerned with diagnosing the chronic, latent or a typical form of the disease. These are suspected when there is anemia, cachixia, enlargement of the spleen or liver, or both. These forms are not as readily demonstrated in the blood stream by the ordinary smear, but if consistent search is made in a properly prepared smear, few cases are overlooked. Our search is often facilitated by the thick film method, or by the injection of 1 cc. of 1 to 1000 solution of adrenalin chloride, causing a contraction of the spleen and a squeezing out into the blood of more parasites. If quinine has been administered previous to examination of the blood, the parasites will not be demonstrated.

Third, we must concern ourselves with the particular parasite present, whether plasmodium vivax, of the tertian infection plasmodium malaria of the quartan, the plasmodium falciparium of the estivo-autumnal, or the plasmodium falciparium quotidianum of the quotidion estivo-autumnal. We must do this in order that we may be able with our present therapeutic knowledge to eliminate the sexual as well as the asexual forms from the blood, as will be seen from the following discussion on treatment.

Treatment: For the past seven years malaria therapy has followed two trends: one, finding some new drug that is more efficient than the cinchona alkaloids; second, finding the optimum condition for the cinchona alkaloids themselves. The introduction of new synthetic drugs and different conceptions of the etiology and epidemiology of the malarial infection have rendered the modern treatment far different from that of a decade ago. At present there are three drugs for the treatment of these infections, each of which has its definite place in the theropeusis, and if used properly they are sufficient to eradicate practically all malarial infections. These are: quinine, plasmochin and atabrine.

Quinine: One of the alkaloids of cinchona bark has justly been regarded as a specific in malaria ever since its discovery in 1820, and until more recently has been more largely used than any other drug in the treatment of these infections. If properly administered over a sufficiently long time, it will eliminate practically all malarial infections, but in some individuals even theraputic doses produce severe toxic symptoms. In these patients quinidine may be tolerated with the same clinical result and same dosage. The salts that are most frequently used are the sulphate, di-hydro-chloride and tannate. The sulphate is most generally useful, and should be employed in the treatment of most infections. The di-hydro-chloride is more soluble, and should be used intravenously when this is required in pernicious infections. The tannate, because of its tastelessness, is a useful salt to employ in the treatment of malaria in children. A great majority of malarial infections can be treated with quinine by mouth. The dosage I have used for years, to my satisfaction, is as follows: Grains five, every three hours, for three days, or until acute symptoms have subsided, then three times a day for one week, then grains ten at bedtime for six weeks. In children less than one year: grains one-half; one year, grains one; two to ten years, grains two to three; ten to fifteen years, grains four to five.

The greatest objection to the use of quinine is the length of time of treatment. Comparatively few individuals will take the drug so long after the disappearance of symptoms. The intravenous use of quinine should be reserved for the pernicious infection, and should be given with the first appearance of symptoms referable to the central nervous system, or symptoms connected with the algid, bilious or other pernicious types.

Quinine di-hydro-chloride is best adopted for this use, and is prepared as follows: to 300 cc. of normal saline solution, 3cc. of quinine di-hydro-chloride solution made in distilled water, and containing twenty grains of the drug. The solution thus prepared is boiled, filtered and given at about 120° F. This is repeated if symptoms are not improved in from four to six hours. As many as three or four injections may be given in twenty-four hours. Prompt diagnosis and instant intravenous therapy are the keynotes of success in the treatment of pernicious malaria. The longer such treatment is

delayed the greater will be the number of fatalities. There is no medical emergency that requires more heroic measures. Supportative measures must be supplemented and spinal puncture is said to be life saving in some of these cases. I have never had occasion to employ it.

In recent years the health section of the league of nations has recommended a short course method of treatment in which smaller doses of quinine, fifteen to eighteen grains, are given from five to seven days, and discontinued so as to allow relapses to occur, after which other short courses are repeated as required. This method is based upon the fact that immunity to malaria, of strain but not of species, is conferred by repeated attacks of the infection. The treatment recommended does not kill all of the plasmodia, but a few remain and produce relapse, with each relapse a certain amount of immunity is conferred until complete immunity is acquired.

Saunders and Dawson working on the same theories, report their results. They used ten to twenty grains for five days with the following conclusions: (1) that relapses within one year following treatment of malaria with twenty grains quinine sulphate for five days are estimated as twenty-five to forty-five percent. (2) The immediate effect against malarial fever of ten or twenty grains quinine daily, appears as good as the larger doses. (3) It was recognized that there are strain differences in response to quinine treatment, hence, their conclusions apply only to the area in which the work was done, but trial of the short course of treatment in other parts of the United States is recommended.

While this method is theoretically sound, it is not without certain dangers, and not practical in the malarial area in which I reside. A case in point is Mrs. B., age 34, who when first seen had had three rather severe paroxysms. Quinine was given according to the usual method. However, this patient discontinued her medication after the sixth day because of a visit to her mother's death bed. Two weeks later she became suddenly critically ill with a chill and severe prostration with hematimesis and b l o o d y diarrhea, bleeding from the gums, subnormal temperature, cold clammy perspiration. She died apparently in acute shock, in spite of all the heroic measures instituted. It is my opinion that cases residing in a malarial district will become infected often enough, and are negligent enough in taking treatment to develop a certain immunity to the particular strain present in spite of all the malaria control, and the efforts of the physician to eradicate the infection completely in each case seen.

Plasmochin: Was developed synthetically in 1915. Although it is a quinoline derivative, it is not a synthetic quinine. It was first introduced for the treatment of malaria by Schulemann and his colleagues, and at that time was recommended for the treatment of all types of malarial infections. In 1927 Heger and Manwell proved that it was more effective in Bird malaria than quinine. The toxicity of the drug renders it an unsafe one to administer indiscriminately in doses that are sufficiently large to cure tertian or quartan infections, while still larger doses are inefficient in the treatment of estivo-autumnal infection. Therefore it has proved unsatisfactory in the treatment of human malaria. However, it has a unique action in killing off the sexual forms, which transmit estivo-autumnal malarial infection from man to mosquito. It should be reserved for patients who present gametes in their peripheral blood. It should be given every case previously treated with quinine, because quinine does not kill these. It is not necessary in tertian or quartan cases treated with atabrine, but it should be given estivo-autumnal cases treated with atabrine.

Atabrine: Was first produced by Mauss and Mietzsch in 1933. Chemically, it is an aldyl-animo-acridine derivative. Like quinine it is of value in all forms of malaria. It is a powder of intense yellow color, neutral in reaction, and soluble in water to the extent of seven per cent. It passes through the intestinal tract and kidneys without decomposition and can be demonstrated in the urine and feces. The excretion is slow, probably extending over several weeks. It is combined with an inert substance, and given by mouth in tablet form. Usual dosage, one and one-half grains, three times a day. Also, it is prepared in ampules for intravenous use.

Atabrine destroys the life cycle forms of all the species of malaria, also the mosquito cycle forms of the gametes of the tertian and quartan species, but does not destroy the gametes of the estivo-autumnal species. It is a cumulative drug because of its very slow elimination from the body. Its rapid specific action upon the malarial plasmodia renders long continued use unnecessary. Then we may say for atabrine that it will eliminate tertian and quartan malaria from man, and also render him harmless so far as transmission to the mosquito and later to man is concerned; while in estivo-autumnal infections atabrine will eliminate the disease in the patient. Plasmochin, one-sixth grain administered in conjunction will prevent transmission to the mosquito. Because of its slow excretion, the dosage usually recommended should not be exceeded. As regards its safety, I have treated 49 cases of malaria in the past year with the following untoward results: Case I—Miss W., school teacher, 20 years

old, developed on fifth day yellowish discoloration of the skin and sclera, and a definite psychosis. The discoloration of the skin and sclera cleared in two weeks and she was able to resume teaching in three weeks. Mrs. M., 29 years old, on the third day developed nausea and vomiting, and a definite psychosis which cleared up in two weeks. Mr. L., after taking atabrine for three days developed severe nausea and vomiting, discoloration of the skin and sclera. The nausea and vomiting was very obstinate, and it was necessary to give fluids intravenously; six months later this patient attempted to take the drug again with the same chain of symptoms. I have had numerous patients with yellowish discoloration of the skin and sclera. All of these cleared up in two weeks. In the past year I have used atabrine intravenously in one case of remittant malarial fever. Patient of 64 years, received three injections at one hour intervals, developed delirium and died in coma. Of the cases treated, there were relapses in two.

Atabrine has been used successfully in the treatment of blackwater fever, and should be preferred to quinine. I cite here a case reported in the Journal of the Medical Association of Alabama by Russell and Morton. A white Cuban boy, 13 years of age, had chronic estivo-autumnal malaria and suffered a severe attack of blackwater fever. Anuria persisted for 36 hours. The spleen tumor reached to the umbilicus; and the hemoglobin 24 per cent. Ten days later there was a rise of temperature, and ring forms of estivo-autumnal parasites were present again in the blood film. Two grains of quinine were given; and a violent paroxysm followed promptly, with a temperature of 104 degrees F. and hemoglobinuria. The boy was in a serious condition. The hemoglobin dropped to 18 per cent. Three days later atabrine was given—0.2 gm. daily for three days. No untoward reaction ensued; the parasites disappeared; and he made a remarkable recovery. In three weeks his hemoglobin increased to 56 per cent, and the spleen was reduced to a level with the rib arch. The case was followed for five months and no relapse occurred.

Conclusion: (1) an accurate diagnosis of malaria is made only when the plasmodia is demonstrated in the peripheral blood. (2) In order to employ our present day therapeusis, it is important to be prepared to diagnose pernicious malaria, the chronic or atypical forms; and to determine the particular parasites present. (3) We have in quinine, atabrine, and plasmochin, three drugs, all of which have a definite place in the treatment of malaria, and if used properly are sufficient to eradicate or cure practically all cases.

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DISCUSSION

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The Diagnosis and Treatment of Malaria

Dr. Shippey has very well covered the subject which is still a very serious problem in southeast Oklahoma. I thoroughly agree with the statement that the classification of malaria is of little practical importance except in the pernicious types, and fortunately we see very few of these cases. Personally, I have never seen a case of the hemorrhagic or hemoglobinuria type.

Usually, the clinical history, symptoms and clinical findings suffice to make a diagnosis. Working in connection with the State Health Department and the Indian Department during the summer of 1939, the Indian nurse and myself obtained 148 slides from Indians of all ages. Most of these gave a history of previous chills and fever, and many were having these symptoms at the time. None had been taking quinine. Only 26 positive slides were reported from the State Health Laboratory. To me, this proves that the routine examination of malarial smears is impractical in a country that is endemic for malaria.

As for treatment, I was very enthusiastic about atabrine during the summer of 1938, but less so in 1939. It has a definite place in the treatment of malaria, particularly in those patients who have an idiosyncrasy to quinine of the urticarial type. These are the only patients in whom I consider quinine definitely contraindicated. I have had the same experience as Dr. Shippey with atabrine in regards to a psychosis. They all clear up in a few days. I have had some cases of skin discoloration that did not clear up for two months. One great objection to atabrine is the nausea and vomiting, sometimes necessitating hospitalization and intravenous glucose.

Dr. Shippey states he reserves the use of intravenous quinine for the pernicious types and I think rightly so. Personally, where I feel parenteral quinine is indicated I use the intramuscular route. I have heard of one death that was felt due to intravenous quinine.

I have had no experience with the use of plasmochin. I should like to mention one drug that Dr. Shippey did not, and that is Mapharsen. I have used it in about ten cases

that did not respond to quinine or atabrine with very satisfactory results. I have never had to give more than two injections of .04 gm. each.

For the past two years, I have routinely prescribed Veracolate tablets, a bile salts preparation, one tablet three times a day. I use this with either quinine or atabrine. I feel that these drugs are greatly enhanced in their action by this preparation.

The Treatment of Trachoma*

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Until very recently the management of trachoma was largely a surgical problem. In the history of this very interesting disease there has been only one procedure which has consistently weathered the storm of new fads and superstitions. The local application of escharotic drugs has been in consistent use since the dawn of history three to four thousand years ago. Chemotherapy as introduced during the past three years has created the newest revolution mainly because of its ease of administration and freedom from pain.

LOCAL TREATMENT

In use today are many new and old escharotic drugs in various dilutions ranging from copper sulphate to one per cent silver nitrate solution. Recently chaulmoogra oil and quinine di hydrochloride have been used and reported by several men as being effective. All of these means have limitations and are admittedly tedious both for patient and physician.

Our management of trachoma has become somewhat standardized and is very simple. We use a four per cent solution of silver nitrate applied by gently brushing the lids and fornices with tiny well-soaked cotton applicators. The medication is allowed to remain for ten minutes followed by irrigation of the eye with a sterile boric acid solution until the conjunctiva is free of the thin grey membrane produced by the action of the silver solution. For home use a solution of zinc sulphate, adrenalin, and boric acid is usually prescribed to be administered three times daily as drops. In cases with lesions of the cornea and iritis, hot compresses and a one per cent solution of atropine sulphate are administered either at home or in the hospital.

I have collected and tabulated sixty-five cases of trachoma from our private files all managed in this simple manner. The tabulated results are as follows:

SEX:

15 Female (23% of total)
50 Males (77% of total)

RACE:

64 White
1 Indian

AGE:

0- 20	16 or 25% of total.
21- 30	16 or 25%
31- 40	14 or 21%
41- 60	16 or 25%
61-100	3 or 4%

TYPES:

Type 1. (Those who had incipient trachoma with tiny follicular lesions and 20/20 vision)
16 cases or 25% of the total of 65 cases.

Type 2. (Those who had granular, velvety, succulent disease of the lids; papillary lesions predominating)
24 cases or 3% of the total.

Type 3. (With extensive scarring disease of the lids)
23 cases or 35% of the total.

Type 4. 25 cases (38%) of flare-up trachoma were included in types two and three as to findings when first seen.

COMPLICATIONS:

Pannus:
28 cases or 43% of the total.
12 cases were bilateral.
16 cases were unilateral.
8 cases were complete in one or both eyes.

Keratitis: 25 cases or 39% of the total had keratitis ranging from small punctate opacities to large ulcers covering most of the cornea.

Iritis: 7 cases or 10% of the total.

Pterygium: 5 cases, four of which were bilateral.

*Read before the Section on Eye, Ear, Nose and Throat, Annual Meeting, Oklahoma State Medical Association, May 7, 1940.

Ectropion and Entropion. One case each deserving of surgery.

Old Corneal Scars:
19 cases or 29% of the total.
8 cases unilateral.
11 cases bilateral.

One patient had known active lues.

AVERAGE DURATION OF TREATMENT:

Intensive treatment: (Daily to bi-weekly) Six weeks.

Convalescent treatment: (Weekly to monthly) Eight weeks.

Total observation period: (Occasional treatment) Twenty-one months.

A few cases of flare-up trachoma were observed a total of only a few weeks but many were followed for five to ten years. Many of those observed over long periods were considered arrested but some had repeated mild flare-ups of their eye disease. Two cases had repeated severe flare-ups and were classed as malignant.

RESULTS OF TREATMENT:

29 cases or 45% were arrested.
16 cases or 25% were markedly improved.
7 cases or 11% were improved without known exacerbation.
12 cases or 18% were unimproved due to frequent relaspes.
1 case (follicular trachoma) showed no improvement.

TOTAL:

19% were considered unimproved in the final analysis.
81% were improved to arrested.

VISUAL IMPROVEMENT:

15 cases or 23% had 20/20 vision at beginning and end of treatment.
5 cases or 8% did not improve (extensive corneal scarring).
4 cases or 6% had only slight improvement (one line of Snellen type or objects to light perception).
25 cases or 38% had marked improvement of vision; from two to five lines of Snellen type. Average improvement was 2.6 lines.
16 cases or 24% had incomplete visual records.

PANNUS:

28 cases (40 eyes).
16 cases unilateral (3 mm. to complete).
8 cases disappeared entirely.
5 improved greatly (regressed to thin pale membrane).
3 remained unchanged.
12 cases bilateral (24 eyes)
13 disappeared entirely.
8 improved greatly.
3 remained unchanged.

Total of 40 eyes affected.
21 or 52% disappeared entirely.
13 or 32% improved greatly.
6 or 15% remained unchanged.

KERATITIS:

The 25 cases all cleared up completely with adjunctual hot compresses and atropine.

SCARS:

19 cases (30 eyes).
5 did not improve.
14 improved one to two lines vision of Snellen type. These were given adjunctual potassium iodide by mouth.

CHEMOTHERAPY

There has been two means of chemotherapy proposed and the results of each reported in literature. Both the use of sulfanilamide given orally and tartar emetic given intravenously have been used apparently with considerable success.

In 1937 Hinneman reported three cases of trachoma treated with sulfonil drugs. Soon afterwards Lian and Dik each reported a rather incomplete series of cases showing effectiveness in clearing up of conjunctival inflammation and rapid healing of corneal complications with sulfanilamide. In October, 1938, Loe reported 140 cases of trachoma in Indians. His results showed all to be improved and at least five arrested. Only a few mild complications were mentioned. Almost simultaneously in October 1938 Kirk, McKelvie, Glasq and Hussein of the British Sudan Medical Service reported 25 cases; 3 of which were unaffected, 8 improved, 7 markedly improved and 7 arrested. Nine of these patients had keratitis which cleared up entirely within one week. Only two of their cases had pannus and both cleared up very slowly. It is interesting to note that this British group bases their trial of sulfanilamide solely on some research work which had shown the value of the drug in healing a meningitis induced in mice by the viris of Lymphogranuloma Inguinale and which showed Rickettsia-like bodies similar to those found in trachoma.

In the ensuing eighteen months there have been published a dozen reports of treatment by the use of sulfanilamide. These bring the total number of cases up to four hundred and eighty-two plus. Perhaps the most satisfactory of these later reports is that of Julianelle, Lane and Whitted of November 1939. They treated a total of 113 cases of which 44 did not respond, 48 were unimproved and 21 arrested. They grouped their cases as follows:

Uncomplicated trachoma: 24 cases: 3 unimproved; 17 improved; 4 arrested.

With predominating corneal symptoms: 24 cases: 2 unimproved; 19 improved; 3 arrested.

With secondary acute infection: 23 cases: (Secondary infection clearing rapidly) 15 trachoma unimproved; 8 improved.

With minor corneal complications: 29 cases: 24 unimproved; 4 improved; 1 arrested.

Flare-up trachoma: 13 cases: All arrested within ten days.

Of the 44 cases unimproved with sulfanilamide, 26 were improved to arrested by subsequent local treatment or by a course of intravenous tartar emetic.

Julianelle summarized the results of foreign writers as follows:

Burnier: 15 cases with type two and three trachoma received grattage and silver nitrate local treatment simultaneously with sulfanilamide. Results were 3 unchanged, 9 improved and 3 arrested.

Busacca: Concluded the drug was of no value.

Wilson: Treated 10 cases of follicular trachoma in children and concluded the drug was of no value.

Burnet, Cuenoid and Natf: Concluded subconjunctival injection is more effective in healing corneal lesions.

Of the 482 cases reported 452 were presented in sufficient detail that they can be tabulated and the results estimated. Of this group, 88 cases or 20 per cent were unaffected, 309 cases or 68 per cent were markedly improved and 55 or 12 per cent were arrested. Most authors agreed that all cases had a marked relief of subjective symptoms as to photophobia, pain and excess tearing. Also there was usually rapid clearing of keratitis and a slower thinning and paling of pannus formation. The action on the lids was slow but many believed that several months after discontinuing treatment follicles continued to absorb themselves. The one report on flare-up trachoma was dramatic as all cases were arrested within ten days.

The various dosages reported have varied from a high of 80 grains a day for a week initially to a low of 20 grains daily for only 14 days. The low dosage given over longer periods apparently obtains results comparable to the higher figures. Many used 1/3 grain per pound body weight a day for 10 days followed by ¼ grain per pound body weight a day for 14 days given with an equal amount of sodium bicarbonate. A blood concentration of 3 mg per cent has been recommended as sufficient. The average duration of treatment with sulfanilamide for the 482 cases reported is found to be 23 days. Some cases were treated for only a week while others were under active medication for as long as four months.

Of the 482 case reports 203 cases were reported in detail as to drug complications, however, all case reports made mention of headache, mild nausea and vertigo not warranting discontinuing the drug. The result of the 203 cases can be estimated as follows:

56 cases or 27 per cent of the group had complications.

15 cases were not itemized.
12 cases had fever.
11 cases severe headache.
10 cases dermatitis.
5 cases cyanosis.
3 cases had nausea, vomiting or vertigo.

It is conclusive that mild symptoms are to be expected as well as uniform drop in hemoglobin and blood count of both red and white cells. The serious complications of blood dyscrasia is usually preceded by unexplained leukocytosis and fever.

Spearman and Vandevere tried sulfapyridine on two cases with complete healing and marked improvement in vision. The dosage used was 7½ grains every four hours. One case which was unimproved after giving over 1000 grains of sulfanilamide cleared up rapidly within ten days upon shifting to sulfapyridine.

Tartar emetic or antimony potassium tartrate has been reported with excellent commendations by two men. Derkac tried it on 50 cases each of which showed rapid absorption of corneal infiltrates, disappearance of pannus and diminution of papillary hypertrophy. Julianelle and co-workers recently reported 40 cases in five series of experimental files. The drug is given intravenously over a period of about a month or until 1 gram has been administered in split doses. A 1 per cent solution is used and 5 cc. dosages are given for a period followed by 10 cc. dosages. No complications of note have been encountered. Of the 40 cases, some adequately treated and some not, 21 were arrested, 7 improved and 2 unimproved. Ten cases were withheld as incomplete, 4 of these received the solution as conjunctival rubs without benefit.

My own experience in chemotherapy of trachoma is limited to but a few cases, however, I was able to obtain data on 12 cases of acute disease by personal communication with Dr. C. G. Stuard of University Hospital. These cases ranged in age from nine years to over sixty. All of them had acute symptoms for three to six months without treatment of consequence. They were equally divided into the three types and nearly all were complicated by pannus, keratitis and acute inflammation of the lids. Four had extensive scarring of the lids and cornea. They received initial dosages varying from 60 to 30 grains according to the intensity of the

condition. Most cases were given 40 grains for two weeks, 30 grains for three weeks and 20 grains for two to six months at whatever intervals they could come in for refilling of their prescriptions. All patients went about their usual duties and none complained of the usual toxic reactions. However, after four months one patient was noted to be cyanotic. All cases were relieved of their photophobia, pain and excess tearing within 24 to 72 hours. Six patients were arrested in two weeks to three months but medication was continued in small dosages in each case. Four patients could be classed as greatly improved and two patients flared up at four to five months mildly.

SUMMARY

1. Sixty-five cases treated intensively on the average of six weeks with local application of 4 per cent silver nitrate solution have been presented and the results of twenty-one months observation tabulated. Thirteen of these cases were classed as unimproved, twenty-three were improved, twenty-nine were classed as arrested trachoma when last seen.

2. From the literature four hundred and fifty-two cases treated with sulfanilamide were reviewed. In estimation of this group about eighty-eight were found to be unimproved, three hundred and nine were improved to markedly improved, fifty-five were definitely stated as being arrested. A brief review of tarter emetic was presented as being about as effective as sulfanilamide.

3. The results of twelve cases of acute trachoma treated extensively with sulfanilamide were reported as all being markedly improved or arrested.

CONCLUSIONS

With sulfanilamide 20 per cent of all cases reported showed no improvement while 80 per cent showed improvement up to arrest. With silver nitrate local treatment 19 per cent showed no improvement while 81 per cent showed improvement up to arrest. The average duration of intensive treatment with the silver was 42 days while that of the sulfanilamide was 23 days.

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Rheumatic Fever: Types, Diagnosis, and Treatment*

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Rheumatic fever is a broad term covering a number of manifestations of a disease which we all admit is not correctly named but for which no one has suggested a better name. Some refer to it as "rheumatic polyarthritis" or "rheumatic infection" and several terms have cropped up in the literature such as "rheumatic granulomatosis," "the rheumatic state," and "rheumaticosis" but none of these has won sufficient support. So, through long usage and because of a no more acceptable term, we still call it rheumatic fever.

*Read before the Section on General Medicine, Annual Session, Oklahoma State Medical Association, May 7, 1940, in Tulsa.

This infection is manifested by a widespread reaction of the tissues throughout the body, in this respect resembling tuberculosis and syphilis on the one hand, and allergy on the other. Due to the protean character of this infection, rheumatic fever may be divided roughly into types and the types may be considered symptomatically and pathologically.

1. SYMPTOMATICALLY

a. Tonsillitis; or other infections of lymphoid tissues in the nasopharynx, and other upper respiratory infections in which the streptococcus plays a part. Certainly tonsillitis, sore throats, and upper respiratory infections are almost as common in this region

as in the northern and northeastern parts of the United States but the great difference in the percentage of cases of rheumatic heart ailments is difficult to explain. Whether the infecting organism is more virulent in the north, whether it is a different strain, whether this organism is more hardy in the north we can only guess.

b. Rheumatism; flitting from one large joint to another associated with swelling, redness, and tenderness, and possibly also associated with rheumatic nodules or erythema multiforme.

c. Chorea; rarely associated with joint manifestations and usually with a small resultant percentage of heart trouble.

d. Growing pains; a vague term and one that we are always told may be a cause of rheumatic heart disease.

e. Lastly, there is that group, although small, in which the etiologic factor would seem to be an indirect allergic response to bacteria or toxins.

2. PATHOLOGICALLY

a. Chronic valvular disease
   (1) Mitral involvement alone 62%
   (2) Aortic involvement alone 5%
   (3) Mitral and aortic involvement 33%
   (4) Tricuspid and pulmonary involvement are very rare
b. Pericarditis—about 7%
c. Myocarditis
   (1) Shown by slight signs in the electrocardiogram in many cases 5%
   (2) Shown by cardiac dilatation or failure or by heart block 5%

In one article it was reported that 58 per cent of the first attacks of rheumatic fever were preceded by respiratory tract infections, and of these precipitating infections, 66 per cent were symptomatic sore throats. On the other hand 37 per cent of the first attacks were apparently clinically spontaneous attacks of rheumatic fever. These researchers found that hemolytic streptococcus infection was associated with most of the first attacks of rheumatic fever, whether or not there were preceding symptoms involving the respiratory tract.

They also found that in the inactive stage of rheumatic fever, sore throats are followed by recurrent rheumatic fever in about one-half of the instances, and almost one-third of the colds are followed by recurrent rheumatic fever. Generally, the chance of a recurrence subsequent to an infection of the respiratory tract decreases as the period of the inactive phase of the disease increases, regardless of the age of the patient. Of the 271 observed recurrences of rheumatic fever, in this article, 67 per cent were clinically associated with infections of the respiratory tract, while 29 per cent were apparently spontaneous. The remaining 4 per cent were clinically associated with infection or trauma outside the respiratory tract.

The diagnosis of rheumatic fever is frequently missed and often very difficult even for the trained observer. The symptoms may be so meager or mild as not to allow of a diagnosis or not force a person to call a doctor. Or a recurrence may be more severe than the first infection and a diagnosis made weeks, months or even years following the first infection.

The typical attack of acute polyarthritis with involvement of one joint after another and complete subsidence of the previously affected part is easily recognized but seldom the case. The response of the fever and the pain to salicylate therapy is fairly characteristic but not pathognomonic. In almost all cases there is an acceleration of the pulse rate beyond the degree of fever. This is an important point in the diagnosis. In practically no other disease is the increase of pulse rate so out of proportion to the degree of fever for so long a time.

The symptoms of rheumatic heart disease depend upon: (1) the activity of the rheumatic infection, (2) obstruction of the circulation resulting from the specific lesions, and (3) heart failure which may come as the result either of overwhelming acute or subacute myocarditis, or of chronic valvular disease, or disturbed heart rhythm, or of two or even all three of these conditions combined. The symptoms of the rheumatic infection include those of any infection but also depend on the reaction of the person to the infecting agent. Joint pains, muscle aches, chorea (rarely combined with joint symptoms), fever, chills (rarely), sweating (sometimes profuse), weakness, effort syndrome, malaise, anorexia, occasionally epistaxis, and loss of color and weight are all symptoms of active rheumatic fever. A low-grade rheumatic heart infection, ordinarily called subacute rheumatic carditis, may set in and last for weeks or months or even years, especially in children, showing itself only by a loss of energy and by the appearance of ill health and a slight elevation of temperature at intervals or daily. Such an occurrence is much more common in children than marked attacks of polyarthritis. Adults are more apt to suffer severe joint pains. Usually, the older the individual the more the joints suffer and the less the heart, while the younger the individual the less the joints are affected and the more the heart. Heart pain is a very uncommon symptom. Dyspnea, when present, is usually due to effort syndrome, but may arise from acute pericarditis or from cardiac dilatation.

There may be nothing but slight enlarg-

ment of the heart with a slight diastolic murmer along the left border of the sternum or a systolic murmur at the apex, found on routine examination; there may be an enormously enlarged heart with several murmurs, absolute arrhythmia, and marked congestive failure; or there may be any combination of signs between these two extremes. Commonly in the child there is a slight to moderate cardiac enlargement with normal rhythm, moderate systolic and mid-diastolic murmurs at the apex, and sometimes a diastolic blow along the left border of the sternum, without frank congestive heart failure, but frequently with slight fever due to activity of the rheumatic infection.

Rheumatic nodules are an important sign of severe rheumatic infection; their presence indicates that the infection is still active even though they persist or recur for months. They are usually of pinhead to pea size and shape, subcutaneous, and loosely attached to tendon sheathes, periosteum, or joint capsules over elbows, knees, ankles, skull, fingers, wrists, toes, and shoulders in the order named, and usually symmetrically distributed on the two sides of the body.

Erythema multiforme is the most common of the cutaneous signs accompanying rheumatic fever, occurring in about 15 per cent of the cases at some time or other.

The electrocardiogram is often normal but it frequently shows a prolonged P-R interval, delayed auriculo-ventricular conduction time, during the acute infection, and this is a fairly diagnostic sign when present as it is uncommon in other infections; arrythmia; abnormal T waves; intraventricular block; or abnormal axis deviation.

The sedimentation rate is usually increased as it is in most other infections, but it is a reliable guide as to the persistence or absence of the infection. A leucocytosis is always present with an active rheumatic infection. A slight secondary anemia is usual in children. The blood culture is generally negative.

The treatment of rheumatic fever is symptomatic. The results of treatment with sulfanilamide have not been as successful as expected. There is no specific treatment. Vaccines and serums have not proved efficacious. Salicylates come as near being specific as any other form of treatment. They do reduce the fever and joint pains in the rheumatic form but there is no evidence that they influence in any way the amount of heart damage. A dose of 15-30 grains of sodium salicylate with an equal amount of sodium bicarbonate every hour or two until relief of symptoms and of fever, or a toxic reaction has ensued, is sometimes recommended. But such large doses rarely should be given for more than a day or two. For children this dose should be halved.

Rest in bed, a light simple diet with sufficient vitamins, and good nursing care are worth more than most drugs.

The treatment of chorea is no more successful than that of rheumatic fever. Absolute rest and quiet, with good nursing care are more important than other measures. Salicylates, arsenic compounds, vaccines, serums, or other drugs seem to have no specific effect in controlling chorea. In severe chorea, magnesium sulphate in a 25 per cent solution intramuscularly, intravenously, or intraspinally, may have a quieting effect. The barbiturates, ticture of stramonium and continuous baths have also been recommended.

Removal of patients to warm, southern climates from the north during the cold seasons has been found to be beneficial to children showing an active rheumatic fever.

Tonsiliectomy is probably advisable in all patients with chronic rheumatic heart disease, provided the heart is in condition to withstand the operation. It is also to be recommended in cases with active rheumatic infection after convalescence has been established. It is probably inadvisable in the acute attack of rheumatic fever. Prophylactically, routine tonsillectomy has been disappointing; there has been little evidence to show that it protects against initial or recurrent attacks. Certainly if the tonsils are enlarged and infected they should be removed along with the adenoid tissue.

Roentgen ray treatment of acute endocarditis and myocarditis has been tried but not in sufficient numbers to draw any definite conclusions. Surgical treatment of chronic rheumatic heart disease is limited to adherent pericardium by thoracolysis, precordial rib resection, and valvulotomy which has been tried in cases of mitral stenosis. Paracentesis must be done for acute pericardial effusions.

Convalescent care of patients with subacute rheumatic infections which lasts sometimes as long as a year or two has become increasingly important. When a child begins to feel well after any illness it is almost impossible to keep him in bed, and, too, the economic angle is very important in most families. Convalescence can be said to have begun when, with the patient at rest in bed, the temperature does not rise above 99 degrees F. by mouth or 100 degrees F. by rectum, the leucocyte count remains below 9,000, the sedimentation rate is normal, the pulse remains below 100, the symptoms and signs of infection have disappeared, the nutrition and general health have improved, and any abnormality has disappeared from the electrocardiogram.

DISCUSSION

CLARK H. HALL
OKLAHOMA CITY, OKLAHOMA

Rheumatic Fevers: Types, Diagnosis, and Treatment

Dr. Roberts has given us a splendid paper. This is an important subject when we stop to think that 95 per cent of all heart disease in children is rheumatic. Over one-third of the cases of heart disease in adults is rheumatic and most of these cases have their onset before 15 years of age and many between 5 and 8 years. Many men feel that the heart is damaged in every case while others are of the opinion that some escape especially during the first attack. The heart is the one organ that may be permanently damaged. As has already been stated, the etiology is not definite. Much work has been done and it is one of the big investigative problems of the day.

SYMPTOMS

The acute fulminating case is easy. Many cases have an insidious onset with indefinite aches and joint pains. Every such case deserves careful consideration. Not all such cases are rheumatic but should be considered as such until it is demonstrated that they are not. This is especially true when there is some temperature and a tachycardia. A careful history will be of great value. Rheumatic nodules are not as common in this section of the country as they are in England and in the eastern part of the United States. We have seen more of them during the past winter than usual.

TREATMENT

Bed rest, salicylates and symptomatic treatment are the best we have to offer at the present. It does very little for some cases while in others it is the determining factor. The patient must remain in bed for some time after all clinical and laboratory data point to no activity. The pulse must be down, temperature normal, white blood count down and sedimentation rate normal. There may be no apparent involvement of the heart but it must be examined carefully at frequent intervals for sometime before we can say that it has entirely escaped damage. Usually the first evidence besides the tachycardia is the mitral insufficiency murmur. Occasionally the aortic may be the first involved or there may multiple lesions. When the child is allowed to sit up in bed he is watched carefully with the pulse as a guide. This is increased slowly. Then he is up in a chair for a few minutes and this period is increased gradually and finally he is allowed to take a few steps. It takes months before the patient is able to resume a reasonably active life. This is carried out along the lines of the regime used for tuberculous patients. It is quite important that the child be kept happy and doing such hand work as he is able. The general condition is to be kept at the highest possible level. All acute infections must be avoided. Such infections, especially upper respiratory infections, may cause a recurrence. The tonsils and adenoids should be removed if they are diseased and are affecting the general condition. They should not be removed just because the patient has a rheumatic infection.

The prognosis is guarded in every case. Many cases can be arrested, especially if recurrences do not result. Chronic rheumatic disease and badly damaged hearts can be kept at a minimum by careful conservative management.

Tinea Capitis*

JOSEPH B. HIX, M.D.
ALTUS, OKLAHOMA

Tinea capitis is also known as tinea tonsurans, herpes tonsurans, ringworm of the scalp. It is a fairly common skin affection seen by every general practitioner, and seen often by the dermatologist.

It is one of the superficial mycoses. Eighty per cent or more of the cases are due to a microsporon or small spored fungi, either of the animal type or human type. In some parts of the United States one type prevails and in other parts the other type prevails. In most parts of the southern and western states the animal type prevails. Jacobson says that the animal microspora are the organisms most frequently responsible for ringworm of the scalp in children in this country. The remainder of the cases are due to a scattering of micro-organisms.

Tinea capitis is almost always seen in chil-

*Read before the Section on Dermatology and Radiology, Annual Session, Oklahoma State Medical Association, May 7, 1940, in Tulsa.

dren before the age of puberty. It is very rarely seen in an adult for the first time. It is usual for it to disappear soon after the age of puberty, even without treatment. This should be taken into consideration in treating a case near puberty, especially if we are considering using X-Ray or thallium acetate for epilation.

The animal type is contracted principally from kittens. It is interesting that this type in animals, as in children, is found in the young. In the larger congested centers and in orphanages, you see many cases of the human type.

The infecting micro-organism first invades the stratum corneum, later enters the hair follicle and finally attacks either the superficial or deep parts of the hair. If we see a child with one or more scaly patches on the scalp, with broken off hairs, we first think of ringworm. The scales are whitish or grayish. The hairs are loosening, dry, and brittle. Usually most of the hairs in the patch are broken off. The patches vary in size from smaller than a dime to the size of a dollar. There may be only one or two patches or there may be many.

In making your diagnosis, if you see a child with a patchy loss of hair, with stumps of hairs in the patches, call it ringworm till you prove it otherwise. Pull out some of the broken off hairs, put them on a slide, cover with ten to twenty-five percent potassium hydroxide, heat slowly in a flame, put on a cover glass and press down. First use low power of microscope, then high dry. The fungi are easily found. An ultraviolet lamp with a Wood's filter is of much help, especially in determining how widespread the infection is, and in helping one to determine when the case is cured. In a dark room with this light the infected hairs will fluoresce with a greenish color. Some of the conditions that may be confused with ringworm of the scalp are psoriasis, alopecia areata, and seborrheic dermatitis. Psoriasis is fairly uncommon in children. The scales in psoriasis are silvery white, and are piled up thickly. Removal of the scales leaves bleeding points. Falling out of the hair is exceptional and broken off hairs are absent. In alopecia areata the patches are smooth and shiny, no scaling, no inflammation, and the hairs are out. In seborrheic dermatitis the scales are either dry, fine and bran-like and not adhered to the scalp, or may be greasy and form crusts which become thickly adherent to the underlying scalp. You do not find broken off hairs.

Prognosis: Most cases will clear up at puberty without treatment, but it is not wise to defer treatment, unless you are dealing with the human type, and the child is near puberty. By using X-Ray for epilation in the human type, and the proper use of medicines locally in the animal type, most cases are well in three to six months.

Treatment: Cultures will tell us the type of infection. If it is the human type, a complete epilation with X-Ray after the method of MacKee and others is the best method. This of course is followed by local applications of three to five per cent ammoniated mercury ointment. To attempt epilation with X-Ray one should have had special training, his machine standardized so that he may know exactly how much X-Ray he is giving. I do not think it wise to give thallium acetate for epilation, as it is very toxic and must be used with great care. In the animal type, the one commonly seen, it is not necessary to epilate with either X-Ray or thallium acetate. The hair must be clipped or shaved. Various local applications have been suggested. Ten per cent ammoniated mercury ointment, ten to fifteen per cent sulphur ointment, iodine ointment or tincture of iodine, iodine crystals in goose grease. The entire scalp should be washed once daily with soap and water. Take some time each day to pull out loose hairs. In the February number of Archives of Dermatology and Syphilology, Spiller, Sharp, and John have an article on treatment of ringworm of the scalp with gentian violet. Their formula is two per cent gentian violet and ten per cent salicylic acid in ninety-five per cent alcohol. This is applied daily. The child should wear a cap made of linen or cotton, which can be changed every day and sterilized. These cases should be checked carefully with ultra-violet, before they are dismissed as well.

DISCUSSION

HERVEY A. FOERSTER, M.D.
OKLAHOMA CITY, OKLAHOMA

Tinea Capitis

I want to compliment the essayist on his clear concise paper on a very interesting subject. He has stressed the dangers of using thallium acetate for epilation. At present I do not know of any American dermatologist using this drug. X-Ray epilation is of course only used as a last resort and then after much careful consideration. Manual epilation by tweezers is very good treatment, especially of the diseased areas. The hairs come out easily and under the Woods filter the diseased hairs are easily seen.

We are fortunate here in Oklahoma in that the tinea capitis that we see is practically all of the animal variety, due to the microsporon lanosum, and it will respond to local medication and never requires X-Ray epilation. There is no practical way except by culturing of the fungus to differentiate the animal and the human type.

EDITORIALS

A PATRIOT'S REWARD

The present criminal indictment of the American Medical Association by the United States Department of Justice, recently upheld by the Supreme Court, and the New Deal's attitude toward the medical profession, including the proposed trends toward regimentation and socialization of medicine, can mean only profound ignorance or gross ingratitude.

The present high rating of personal and public health in this country is supported by a creditable list of medical martyrs, men who voluntarily gave life in order that we might be protected from deadly epidemics. There is a much larger list of medical men who lived to give freely of their energy and skill for the safety and security of society and the welfare of their country.

In order to make their services more effective, the American Medical Association was organized in 1847. In the preamble of its Constitution, we find the following declaration of purposes: "For cultivating and advancing knowledge; for elevating the standard of medical education: for promoting the usefulness, honor and interests of the medical profession; for enlightening and directing public opinion in regards to the duties, responsibilities and requirements of medical men; for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those engaged in it."

In 1901 the "duties, responsibilities and requirements of medical men" were replaced with "the broad problems of hygiene," thus more definitely declaring our responsibility to society. For more than one hundred years the American Medical Association as a democratic body, has served this great American democracy. It has always stood for the public weal and was directly instrumental in the establishment of the Department of Public Health. The American Medical Association, through its Council on Medical Education cleaned house within its own ranks, eliminated the incompetent and elevated the standards of medical education so that the people of the United States might have the best possible medical service. Such a house cleaning in governmental ranks might develop a few more genuine statesmen, eliminate a great deal of red-tape, lost motion, and unnecessary cost, and, most of all, restore national confidence.

Through the Council on Pharmacy and Chemistry, the American Medical Association has given the public protection against the fraudulent claims and dangerous practices of the manufacturers of patent medicines. The Council on Defense of Medical Research has carefully guarded the priceless blessing of animal research. A detailed account of all the services offered by the America Medical Association during the past century would fill volumes.

It has been the business of this organization to keep aloof from political controversy, but it has always been interested in legislation having to do with public health and medical welfare. Consequently, its Committee on Medical Legislation has repeatedly rendered valuable services. As examples of past accomplishments, we might cite its effective opposition to the Antivivisection Bill before Congress many years ago, and the Committiee's valiant support of the Food and Drug Act, as well as many other public health measures.

Recent organized efforts on the part of the national, state and local medical groups to bring about a more equable distribution of medical service, and the present generous attitude of the American Medical Association toward medical preparedness, reveal an abiding loyalty and patriotism among the members of the medical profession which cannot be destroyed by political injustice.

In his presidential address before the American Medical Association in 1910, Wm. H. Welch said: "Organized effort is a distinguishing mark of modern civilization. It is as essential for the advancement of science, of education, of social and industrial reform, of philanthropic endeavor, as for the promotion of commerce. With the remarkable progress of medical science, especially during the last three decades, man's power to control disease has been vastly increased, and the sphere of usefulness of the physician has been correspondingly widened, and with advancing knowledge will continue to expand. The skill and knowledge of the physician and sanitarian have acquired a new and ever increasing importance and significance in the movements for social amelioration, for improvement of the conditions of labor and of living, for the conservation and most efficient utilization of the productive energy of the world, and for the reclamation of regions now yielding no return to civilization.

"Among the organized forces for advancing the prosperity, the happiness and the well being of the people of this country, the American Medical Association has an important part to play. We are justified in the confidence that, with the united support and loyalty of the profession, this association, broadly representative and standing for the best ideals of medical science and art and for professional and civic righteousness, will contribute a beneficient share to the working out of our national destiny."

The last paragraph of the above quotation might well be considered a prophecy which has been fully realized. Medicine has contributed its "beneficent share." It has not only made possible healthful existence under difficult modern conditions, it has given us the greatest life expectancy, the highest health level, and the lowest mortality in the history of the world. It has given the people of the United States, including the law makers and administrators in Washington, adequate protection against practically all epidemic and other deadly diseases. Thanks to Theodore Roosevelt, who listened to medical advisers, it made possible the building of the Panama Canal in the face of shortsighted opposition to General Gorgas's effective methods of sanitation. It has kept the high seas open in spite of improved methods of transportation which have exposed all nations to varied sectional and racial pathological conditions.

H. G. Wells, though not a scientist, writes as follows: "When the intellectual history of this time comes to be written, nothing, I think, will stand out more strikingly than the empty gulf in quality between the superb and richly fruitful scientific investigations that are going on and the general thought of other educated sections of the community. I do not mean that scientific men are, as a whole, a class of supermen, dealing and thinking about everything in a way altogether better than the common run of humanity, but in their field they think and work with an intensity and integrity, a breadth, a boldness, patience, thoroughness, fruitfulness, excepting only a few artists, which puts their work out of all comparison with any other human activity. In these particular directions the human mind has achieved a new and higher quality of attitude and gesture, a veracity, a self-detachment and self-abrogating vigor of criticism that tends to spread out and must ultimately spread to every other human affair."

Pasteur, a true scientist, wrote: "In our Century science is the soul of the prosperity of nations and the living source of all progress. Undoubtedly the tiring discussions of politics seem to be our guide—empty appearances! What really leads us forward is a few scientific discoveries and their application."

Considering medicine's contribution to national welfare, the following question naturally arises. Is it the hand of gross ingratitude, bent on political expediency, or is it the powerful arm of ignorance that wields the ax? If the doctors do not enlighten the people, the ambitious Aarons may convert the golden egg into a molten calf, which will enslave the medical profession and curse an innocent public.

The following from Bismarck, who founded socialized medicine in Germany, plainly reveals the politician's designs and the unsuspecting participant's embarrassing plight. "A beginning must be made with the task of reconciling the laboring classes with the State. Whoever has a pension assured to him in his old age is much more contented and easy to manage than the man who has no such prospect. Compare a servant in a private house and one attached to a Government office or to the Court; the latter, because he looks forward to a pension, will put up with a great deal more. . . . ."

If man continues to be the noblest creation of God, doctors must not only offer him a sound body, but they must help preserve the spiritual, moral and social values. In other words, the doctor must become a profound psychologist and a skilled interpreter of environment, including the hazardous functions of government.

The final question—how much should we put up with? The Publicity Committee of the State Medical Association should employ every possible medium through which the facts may be conveyed to the people. There is hope in the thought that only an unenlightened public is grossly gullible.—L. J. M.

AUSTIN A. HAYDEN

There has been no officer of the American Medical Association more loved and appreciated by the physicians of Oklahoma than Dr. Austin A. Hayden. He has made repeated trips to this state to address our membership. He has discussed scientific subjects and medical organization and was considered authority in either line. We have always felt that we received from him great inspiration and enlightenment.

His personality was of a sort that appealed to men; his smile and kindly manner brought to him hosts of friends. His untiring labors for organized medicine made him a man honored by the profession.

On July 10, 1940 he was called from this life, on July 12 High Mass was celebrated for our deceased friend. He lives with us now in the work he has accomplished and the memory of the hours spent in his association. Oklahoma physicians will miss him greatly.

• THE PRESIDENT'S PAGE •

Every facility of the Oklahoma State Medical Association has been offered to the American Medical Association's Medical Preparedness Committee. The mobilization of the medical profession is as vital to the defense of our nation as is the building of airplanes, guns, and tanks. Medicine will fight on every front and will be the bulwark of strength for the people to meet any emergency. Health is as important to industry, business and the right mental attitude as it is to any war machine. Public health agencies and organized medicine, from the specialists to the general practitioners, must correlate their efforts. Now, as never before, must medicine utilize its every resource and skill to advancing and preserving the health of the people of the United States.

Since June of this year, when the Medical Preparedness Committee of the A. M. A. came into being, further organization of the profession has continued. Each corps area of the Army and Navy has a member on the original Committee who will act as coordinator for the states in his area. Every state medical association has its Chairman, and it is now squarely up to the county societies and their members to respond as they have always done in every emergency.

Some time ago, the A. M. A. mailed a questionnaire to every licensed physician in Oklahoma. At the time this is being written, only 959 out of 2,353 of these mailed into this state have been completed and returned to the Committee. The information to be gained from these, properly answered, is vital to preparedness. If you have not completed and returned the questionnaire please do so at once. If you did not receive one or if you have misplaced it, please advise this office and another will be sent to you immediately. Should you have difficulty in answering the questions, let us know and we will try to help you.

Remember: In response to a similar appeal, 90 per cent of the members of the Canadian Medical Association volunteered their services within three weeks' time. Surely, we can do as well. Don't delay—return your questionnaire TODAY. Let's make Oklahoma 100 per cent.

Henry H. Turner

President.

Note: Since the June 22 issue, the Journal of the American Medical Association has devoted each week a section to Medical Preparedness, which contains information useful to the medical profession. Be sure and read these comments.

ASSOCIATION ACTIVITIES

Medical Preparedness Activities Start in State

Dr. Henry H. Turner Named To State Chairmanship

The American Medical Association's recent request to each state medical society for appointment of one of its members as state chairman of medical preparedness work to work with the National Committee on Medical Preparedness, has been answered by the Oklahoma State Medical Association through its Council with the recommendation of Dr. Henry H. Turner for that position.

Coordination of the activities of the national committee in each component association will be the duty of each state chairman, the Medical Preparedness Committee pointed out. The chairman will be directly responsible to the A. M. A. committee member from the state's corps area, who in Oklahoma's case is Dr. Samuel E. Thompson of Kerrville, Texas, representative of the eighth corps area.

Actually, the functions of the state chairmen will be but an extension of those carried on by the national committee. Contact with other state chairmen in the vicinity will be made through the corps area representative, and contact also will be maintained through this source with the headquarters of the National Committee on Medical Preparedness.

As outlined by the national committee, the functions of a state chairman include the following:

1. Contact with and coordination of the activties of state, county and district medical societies.

2. Cooperation with county medical societies in securing completion and return of the questionnaire on personal information.

3. To establish mechanisms for securing supplementary information to the questionnaire when necessary.

4. To organize a state committee on medical preparedness to be composed of the president and the secretary of the state medical society, the state chairman for the Committee on Medical Preparedness and ex-officio the member of the Committee on Medical Preparedness of the American Medical Association within whose corps area the state is located and such other members as this group may select.

5. To assist in the organization of county committees on medical preparedness.

6. To invite local and state health authorities to participate in the work of the program particularly in the matter of civilian health.

7. To arrange for the dissemination of information on medical preparedness to the groups that are concerned with any particular matter.

8. To assist in the verification of the qualifications of physicians desired for service in the Army, industry, special physical examinations and other special work necessary for national defense.

9. To report to the Committee on Medical Preparedness a list of the names of physicians from each county of the state whose services are believed to be necessary for the maintenance of civilian health and who should, in the opinion of the state committee on medical preparedness, be exempt from military service.

Appointment of the other members of the Committee for the state will be announced as soon as possible.

Together with this information, word has been received from Dr. Olin West, Secretary and General Manager of the American Medical Association and likewise Secretary of the National Committee, to the effect that he has received information from the office of the Surgeon General of the United States Army that in all probability the age limit for physicians who may be called for military duty will be fifty-five years. It is possible, he said, that the services of some physicians above the age of fifty-five may be used for special purposes, and it is thought that some physicians of an age less than fifty-five, including those in the lower age groups, may be assigned to duties concerned with service to civilian groups.

Medical Preparedness Committee Issues Questionnaires

As a part of the plan for preparedness of the medical profession to enable the nation to meet any emergency which might arise, the Committee on Medical Preparedness of the American Medical Association is sending out questionnaires to each licensed physician in the United States and its territories, it has been announced in The Journal of the Association. The questionnaires are being sent out at the request of the Surgeon Generals of the United States Army, Navy and Public Health Service.

Upon receipt of the filled-in questionnaires in the A. M. A. offices, the information will be transferred to cards in a punch card system so that it will be possible by the use of the usual machine to make a selection of physicians capable of serving in various military, naval, industrial or civil capacities, The Journal stated.

Issuing a plea for cooperation, the Committee asked for an early return of the questionnaires, stating that, as physicians are needed, an attempt will be made to furnish them through this means, while if conscription becomes necessary, every effort will be made to assign the doctors to the work for which they are especially suited.

Ophthalmology Examination Dates Announced by Board

According to an announcement by the American Board of Ophthalmology, only one written examination in that specialty will be given during 1941. This will be held in various cities throughout the country.

Candidates enrolled in the Preparatory Group who have been advised that they will be eligible for examination during 1941 should make application at once to take this written examination. Application must be made on the regular blanks provided for the purpose and must be received in the Board Office, 6830 Waterman Avenue, St. Louis, Mo., before December 1, 1940.

Oral examinations will be held in May or June in Cleveland, and in October, this place to be announced later. Deadlines for case reports are February 1 and July 1.

A special oral and clinical examination will be held on the Pacific Coast during 1941 providing there will be enough candidates to warrant it. Applications for this examination should be filed before September 1, 1940, so that the Board may complete necessary arrangements.

Resolutions Adopted By House of Delegates

As announced in the July issue of The Journal, the resolutions adopted by the House of Delegates at the Annual Meeting of the Oklahoma State Medical Association in Tulsa, Okla., May 6, 7, and 8 are hereby published.

Clinical Pathology

WHEREAS; The practice of clinical pathology has been officially recognized by the American Medical Association as a specialty of medicine; and

WHEREAS; The future of this specialty is being seriously jeopardized by several factors, chief of which is the activity of various governmental agencies in providing various types of laboratory services to the people irrespective of their ability to pay; and in certain parts of one state, service is offered to both sick and well, in the home and in the hospital, day and night, including not only laboratory examinations of public health interest, but tissue examinations, basal metabolisms, electro-cardiographs, etc.; and

WHEREAS; Complete socialization of pathology in some areas of this country may be only the forerunner of the complete socialization of clinical medicine; and

WHEREAS; Most State Health Department and nearly all officials of the Federal Government interpret paragraphs two and three of Section XV, Supplement 10 of the United States Public Health Service, (Control of the Venereal Diseases in the United States), on the basis of paragraph three, which reads as follows:

"Free diagnostic and treatment facilities shall be provided by all health departments or clinics receiving funds under this act for (a) the diagnosis and emergency treatment of all patients who apply; (b) all patients referred by a private physician either for continued treatment or for consultative advice and opinion; and (c) all patients unable to afford private medical care. The determination of the ability of patients to pay for private medical care shall be the responsibility of the state or local health department or constituted welfare agencies within these areas. Clinics collecting fees from semi-indigent patients shall not receive assistance under this act unless such fees are used solely by the venereal disease clinic for improvement of diagnostic and therapeutic services rendered therein", and

WHEREAS; This interpretation, if generally followed, will result in such a curtailment of private and hospital pathologic laboratories that many will have to be abandoned. The loss of widely distributed pathologic laboratories and their services would be a definite detriment to all concerned, including the patient; and

WHEREAS; The United States Public Health Service has recently applied a new interpretation to these paragraphs on the basis of the literal wording of paragraph two, which places the laboratory services for the control of venereal diseases on the same basis as such services for other communicable diseases. Paragraph two reads as follows:

"The state laboratory and any local laboratory receiving funds under this act shall provide laboratory services for the venereal diseases on the same basis as such service is provided for other communicable diseases. No state department of health shall be entitled to receive payments under this act unless such laboratory services are provided within that state."

and

WHEREAS; On the basis of this interpretation, the Kansas State Board of Health formulated the following resolution:

"The Kansas State Board of Health hereby instructs the state laboratories to furnish laboratory service for diagnosis of all communicable diseases at public expense to all state and county board of social welfare clients, social types of public assistant clients: to all inmates or patients of federal, state, county, or municipal institutions and homes: and to all other residents of the state of Kansas who find it difficult or impossible to pay the costs of laboratory service of this kind in the usual and customary manner." and

WHEREAS; The United States Public Health Service approved said Kansas resolution as evidenced by the following letter:

FEDERAL SECURITY AGENCY
U. S. Public Health Service
Washington, D. C.
November 29, 1939

Dr. F. P. Helm, Secretary
State Board of Health,
Topeka, Kansas.

Dear Dr. Helm:

I have your letter of November 23d and the copy of the resolution which was passed by the Kansas State Board of Health at a special meeting held November 22d.

The action taken by the Board places laboratory tests for venereal diseases in the state of Kansas on the same basis as such services are provided for other communicable diseases, and meets the letter of the Surgeon General's Regulations Governing Allotments and Payments to the States for Venereal Disease Control Activities for the Fiscal year 1940, as set forth in paragraph 2, section 15.

Sincerely yours,
R. A. Vonderlehr,
Assistant Surgeon General,
Division of Venereal Diseases.

Therefore, be it

RESOLVED; That the Oklahoma State Medical Association, recognizing the fact that socialization of pathology might be the forerunner of complete socialization of clinical medicine, requests the Oklahoma State Health Department to instruct the state laboratories to furnish laboratory service for diagnosis of all communicable diseases at public expense to all state and county boards of social welfare clients, social types of public assistance clients; to all inmates or patients of federal, state, county, or municipal institutions and homes; and to all other residents of the state of Oklahoma who find it difficult or impossible to pay the costs of laboratory services of this kind in the usual customary manner.

The Oklahoma State Medical Association also requests the State Health Department to instruct the state laboratories to provide laboratory service, at public expense and without requirement of request forms, to all county and city health officers, all employees of the Oklahoma State Board of Health, and all staff members of federal, state, county, and municipal institutions and homes who desire to utilize the services of the state laboratories in conjunction with their official duty, and to revoke all regulations in conflict therewith.

Third Party Lien Law

WHEREAS; There exists in many states of the United States a law commonly known as a third party lien law, and

WHEREAS; Many members of our Society caring for a person injured are deprived of their rightful fees, and

WHEREAS; If a third party lien law should exist in Oklahoma, the attending physician would have a legal lien against any settlement between the injured party and the injuring party,

Be it

RESOLVED; That the Legislative Committee of the State Association be instructed to make this a matter of business with sincere endeavor to secure such a law for Oklahoma.

University of Oklahoma School of Medicine

RESOLVED; That this Association desires to record its interest in the welfare and progress of the University of Oklahoma School of Medicine. In spite of the limited financial support the school has received, it has made a

THE EFFECT of Atabrine dihydrochloride upon malarial parasites is manifested so speedily and so thoroughly that treatment with this chemotherapeutic agent has been aptly described as a "short cut to recovery."

Not only are patients incapacitated for a much shorter time than formerly, but anemia, splenomegaly and other chronic complications of malaria are largely prevented.

Because of its potency the dose of Atabrine dihydrochloride is small—ordinarily only 1½ grains three times daily for from five to seven days.

HOW SUPPLIED: Tablets of 0.1 Gm. (1½ grains), tubes of 15 and bottles of 25, 100 and 500; sugar coated tablets of 0.1 Gm. (1½ grains), bottles of 25, 100 and 500; tablets of 0.05 Gm. (¾ grain), bottles of 50 and 500. Also ampules for injection in cerebral and pernicious types of malaria.

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CHEMOTHERAPEUTIC SPECIFIC AGAINST MALARIA

IMPORTANT NOTICE

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Pharmaceuticals of merit for the physician **NEW YORK, N. Y. • WINDSOR, ONT**

738aM

record which is a credit to the State. The Association requests that this institution receive adequate appropriations at the hands of future State legislatures so that it may continue to advance and keep abreast of the progress of medical education.

And be it further

RESOLVED; That a copy of this resolution be sent to the Governor of the State and at the time of the next meeting of the State Legislature to the Speaker of the House and to the President Pro Tem of the Senate.

Forty-Eight State Physicians Attend A. M. A. Sessions

Oklahoma was well represented when physicians from over the world convened in New York City for the annual session of the American Medical Association in June.

Physicians attending from this state were: E. R. Muntz, Ada; John R. Reid, Altus; W. A. Howard, Chelsea; W. Turner Bynum, Chickasha; H. N. Sisco, Chilocco; Richard M. Burke, Paul B. Lingenfelter and McLain Rogers, all of Clinton; J. Sherwood Jacoby, Commerce; Donovan Tool, Edmond; George T. Ross, Evelyn Rude, both of Enid; Robert F. Loughmiller, Walter Franz Von Belinski, both of Fort Sill; Edward D. Greenberger, McAlester; Charles Ed White, Muskogee.

William H. Bailey, Ray M. Balyeat, John Y. Battenfield, C. P. Bondurant, A. M. Brewer, Anson L. Clark, Paul C. Colonna, H. E. Doudna, William E. Eastland, E. S. Ferguson, E. Goldfain, Wayne M. Hull, John H. Lamb, Earl D. McBride. Ralph E. Meyers, Robert U. Patterson, Horace Reed, C. R. Rountree, Edward N. Smith, Henry H. Turner, and Phil E. White, all of Oklahoma City; Galvin L. Johnson, Pauls Valley; A. C. McFarling, Shawnee; Howard L. Puckett and Wildridge Clark Thompson, both of Stillwater; J. C. Braswell, W. Albert Cook, Harry Green, I. A. Nelson, and H. B. Stewart, all of Tulsa; W. R. Marks, Vinita; and Myron C. England, Woodward.

"Is This Product Council-Accepted?"

This is the first question many physicians ask the detail man, when a new product is presented.

If the detail man answers, "No," the doctor saves time by saying, "Come around again when the Council accepts your product."

If the detail man answers, "Yes," the doctor knows that the composition of the product has been carefully verified, and that members of the Council have scrutinized the label, weighed the evidence, checked the claims, and agreed that the product merits the confidence of the physicians. The doctor can ask his own questions, and make his own decision about using the product, but not only has he saved himself a vast amount of time but he has derived the benefit of a fearless, expert, fact-finding body whose sole function is to protect him and his patient.

No one physician, even if he were qualified, could afford to devote so much time and study to every new product. His Council renders this service for him, freely. Nowhere else in the world is there a group that performs the function so ably served by the Council on Pharmacy and Chemistry and the Council on Foods.

Mead Johnson and Company cooperates with both Councils, not because we have to but because we want to. Our detail men can always answer you, "Yes, this Mead Product is Council-Accepted."

Neurological Surgery Exams Announced

The American Board of Neurological Surgery will hold its first examination to certify candidates at the University of Illinois, 804 South Wood Street, Chicago, October 18-19. Application forms and copies of the charter and by-laws may be obtained from the secretary, Dr. Roy Glenwood Spurling, 404 Brown Building, Louisville, Ky.

WARNING

Dr. Sam A. McKeel of Ada has advised the Executive Offices that there is a man contacting doctors over the state representing himself to be Dr. McKeel's son. This man who, in the majority of cases gives the name of Fred McKeel, is asking doctors to cash small checks for him. He speaks about his brother, John Boyce McKeel, and apparently knows a good deal about Dr. McKeel's family.

Dr. McKeel is anxious to have every doctor know that he has but one son, Senator John Boyce McKeel, who resides in Ada and is a member of the legal profession.

Should this man contact any member of the medical profession, every effort should be made to place him in the hands of local authorities, as he is wanted in several cities of the state.

Announces Fellowships in Psychiatry

The National Committe for Mental Hygiene announces that a limited number of fellowships have been provided by the Commonwealth Fund and other sources for training in extramural psychiatry, especially child psychiatry.

The committee is to assign fellows for one or two years at a selected child guidance clinic, the term and plan of the fellowship to be determined by the needs of each fellow.

Candidates for these awards should have had at least two years of psychiatry in an approved mental hospital in addition to other qualities fitting them for extramural service. Accordingly, other conditions as to age, sex and marital status must be governed by individual cases and by current demand. Requests for further information should be addressed to Dr. Milton E. Kirkpatrick, National Committee for Mental Hygiene, Room 822, 50 West Fiftieth Street, New York.

New chief of the medical staff of the Muskogee U. S. Veterans Bureau is Dr. H. C. Hardegree, who assumed his duties June 19. Dr. Hardegree, who came to Muskogee from Kecoughton, Va., replaced Dr. Charles L. Magruder, who left to become chief of the medical staff for the new Veterans Hospital in Dallas, Texas. The new chief of staff is a fellow of the American Medical Associtiaon, member of the Clay County, Mo., and Missouri State Medical Societies, and a member of the Peninsula Academy of Medicine of Virginia.

Appointment of Dr. H. H. Riddle of Coweta as Wagoner County health officer, effective July 1, has been announced. Dr. Riddle, a former county health officer, succeeded Dr. W. R. Joblin of Porter.

Dr. E. L. Collette, Jr., of Dewey, who has been located in Dewey for the past year, left late in July for Cleveland, Ohio, where he has accepted a position as surgeon in the Children's Hospital.

Dr. Clark Hall, Oklahoma City physician, has been appointed chief of staff for the new convalescent home of the Crippled Children's Hospital. The home in Bethany was opened in July by the Children's Welfare League. The convalescent service was adopted by the league which formerly conducted a home for dependent children, to release beds in the hospital for urgent cases. The home has a capacity of 30 beds.

Physicians Casualty Association Sets Enviable Record

A record of more than $5.00 paid for claims to each $1.00 used for the entire expense of operation has been established for the past year by the Physicians Casualty Association and Physicians Health Association, according to a report received from the association's office in Omaha, Neb.

The report, taken from the annual report rendered to the State Insurance Department, reveals that the associations achieved the following record:

Total income	$ 922,118
Paid for Claims	640,302
Entire Expense	124,514
Net Surplus	1,676,946

The associations' membership is limited to ethical practicing physicians, surgeons, and dentists.

Venereal Disease Information Valuable Aid

Venereal Disease Information, published monthly by the U. S. Public Health Service, presents a monthly digest of the important papers on diagnosis, treatment, pathology, laboratory research, and public health from the entire world. In addition, it publishes important special papers and reports by leading scientists. It is designed to keep both the specialist and the general practitioner informed of developments in the field of syphilology and urology.

This medical journal of venereal disease has been highly recommended by leaders in all fields of public health. In a rapidly developing and changing field of medicine, the physician interested in venereal disease control from the standpoint of differential diagnosis and treatment will find Venereal Disease Information an important aid.

All order should be directed to the Superintendent of Documents, Government Printing Office, Washington, D. C. Subscription fee is 50 cents per year.

Insurance Company Figures Show Mortality Rate Decrease

A decrease in the rate of mortality from all causes for the first five months of 1940 from the same five months during 1939 has been shown in figures released by the Metropolitan Life Insurance Company.

The rate dropped from 8.48 per 1,000 policyholders in January through May of 1939 to 8.24 per 1,000 over the same period in 1940. While a definite lowering of the monthly rate in July, August, September and October in 1939 brought the entire year's rate down to 7.65 per 1,000, only the first five months have been used for the sake of comparison.

Osler Memorial Building Dedicated

The old autopsy house where Osler worked at Blockley has been restored as the Osler Memorial Building, and was dedicated on the grounds of the Philadelphia General Hospital, at Curie Avenue, near 34th and Pine Streets, Philadelphia, Pa., at 2 p.m. on June 8, 1940.

Original furnishings, including the necropsy table, have been collected. The paintings by Dean Cornwell, N. A., of New York, entitled "Osler at Old Blockley," was on exhibition during the celebration.

There are facilities in the building for the housing and preservation of relics of Old Blockley, as well as Osleriana. The Committee would welcome any additions to this collection.

New Orleans Has New District Health Unit

The U. S. Public Health Service has established a permanent health district unit with headquarters in New Orleans, it has been announced. The unit will supervise public health service work in Texas, Louisiana, Florida, Alabama, Georgia, Mississippi and Tennessee. Dr. Charles L. Williams, assistant surgeon general, U. S. Public Health Service, will be in charge of the unit.

SILVER PICRATE

Wyeth

HAS SHOWN A CONVINCING RECORD* OF EFFECTIVENESS IN ACUTE ANTERIOR URETHRITIS

due to Neisseria gonorrheae • Trichomonas vaginalis Monilia albicans

Silver Picrate is a crystalline compound of silver in definite chemical combination with picric acid. Dosage form for use in anterior urethritis: Wyeth's Silver Picrate Crystals in an aqueous solution of 0.5 percent.

Supplied at all pharmacies in vials of 2 grams

Complete literature on Silver Picrate as used in genitourinary and gynecological practice will be mailed on request.

*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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News From The State Health Department

With the support of the medical societies, public officials and interested citizens, the Oklahoma State Health Department will provide full time local health services in 36 counties during the fiscal year which began July 1, Dr. G. F. Mathews, Commissioner, has announced.

The growth of organized preventive medicine in Oklahoma is indicated in the announcement that eight counties will have local health departments for the first time.

The full-time, local health department is the basic form of practical public health, with trained personnel working day by day in a local area, meeting the problems as they arise, knowing and working with the residents of the county. Where such units are in operation there is a complete public health program carried on, with the state organization functioning in the area only in times of emergency.

During the fiscal years which ended July 1, Oklahoma had 29 full-time health departments in operation, and all but one county have approved budgets for the new year.

The counties which will have new health departments are: Roger Mills, Coal, Atoka, Creek, Caddo, McClain, Logan and Bryan.

Roger Mills county will be joined with Ellis county to form a new district. Ellis county has had a full-time local health service in the past, in a joint department with Woodward and Harper counties. These two counties will operate together this year, it was announced.

Bryan county is leaving its affiliation with Marshall and Love counties, which comprised a district, and will maintain a single county department, according to recently announced plans. Love, Marshall and Johnston counties will function as a district.

A new district will be established in southeastern Oklahoma, consisting of Coal and Atoka counties. Addition of these two counties gives the entire southeastern section of the state an organized public health program.

Single county departments are being established in Creek, Caddo, McClain, Logan and Bryan counties, with headquarters at Sapulpa, Anadarko, Purcell, Guthrie, and Durant, respectively.

In each county local funds were set aside by the county commissioners, to be matched by the State Health Department to provide finances needed to carry out the program.

The full-time local health department does only preventive work, based on education of the public toward ways of healthier living. Public health units do no curative practice, instead work with the private physician, referring the public to the physician in cases where corrective work is needed, it was pointed out.

Oklahoma's campaign to control syphilis and gonorrhea will be expanded and improved during the fiscal year which began July 1, Dr. G. F. Mathews, commissioner of the Oklahoma State Health Dpartment, has announced.

Since the allotment of federal funds made a generalized program possible in Oklahoma in 1938, planned clinics for the treatment of syphilis have been established in 48 cities.

Beginning shortly after July 1 the number of clinics will be increased to 59.

Over 5,000 patients who are indigent or referred by private physicians are being treated weekly at the clinics.

The program for this year will stress clinics for venereal disease work which are operated by the full-time local health departments.

Private physicians will be paid to assist health department directors in the larger clinics and clinics will also be operated in cities where there is no full-time health department. Traveling clinicians and nurses will conduct these clinics.

Since January 1, drugs for the treatment of syphilis have been distributed by the State Health Department to clinics and private physicians when requested.

Dr. Eugene A. Gillis, past assistant surgeon, U. S. Public Health Service, is director of the venereal disease program. Dr. Vance F. Morgan, director during the past year, is at Johns Hopkins University School of Public Health, Baltimore, for a year of study in venereal disease control.

The following cities, located in counties with full-time health service, will have venereal disease clinics: Jay, Pryor, Tahlequah, Stilwell, Sallisaw, Boynton, Muskogee, Poteau, Idabel, Hugo, Antlers, Durant, Madill, Marietta, Ardmore, Ada, Konawa, Wewoka, Asher, Seminole, Shawnee, Norman, Oklahoma City, Tulsa, Stillwater, Cushing, Kingfisher, Arnett, Woodward and Buffalo.

The following cities are scheduled to have clinics operating in new full-time health departments: Atoka, Coalgate, Purcell, Guthrie, Langston, Anadarko, Carnegie, Sapulpa, Drumright, Bristow and Cheyenne.

The following cities in counties not served by full-time health departments will have clinics: Nowata, Wagoner, Porter, Stigler, Henryetta, Okmulgee, Okemah, Duncan, Lawton, Altus, Frederick and Enid.

Of these groups, the following are clinics which will begin operation for the first time under plans for the new fiscal year: Buffalo, Arnett, Cheyenne, Healdton, Coalgate, Purcell, Maud, Oktaha, Bristow, Bennington.

University of Oklahoma School of Medicine

When the University of Oklahoma inaugurated a medical school in 1900, it was the purpose of the State to make it possible for citizens of Oklahoma to obtain a medical education in their own State at a minimum of expense, with the desire that after they had graduated they would remain in Oklahoma to enter practice.

Therefore, the objective of the medical school has always been to train young physicians so that they will be *competent general practitioners.* The course of study is of such a character that any who later on wish to take up one of the specialties will have had the scientific background necessary to enable them, with additional training, to enter some particular field of medicine. The majority of the graduates of our School of Medicine are engaged in general practice.

Of the 1,016 graduates of the medical school, about 55 per cent (1) are actively engaged in practice in Oklahoma, in some 200 cities, towns, and smaller communities in every county of the State, except ten. Within a very few years there will be graduates practicing in those ten counties in which no graduate of this school is now practicing, physicians will settle whenever it becomes evident that there is a sufficient population to insure their ability to make a living and support their families. Until those conditions exist no physician reasonably can be expected to locate in such sparsely settled communities. However, even now this does not afford any hardship to people living in lightly settled districts because of good roads and means of communication that exist. Few people in the State are not within reach of medical advice.

Oklahoma has a very good law which requires that no physician may engage in practice until he or she has successfully passed an examination before the State Board of Medical Examiners of Oklahoma, and no physician is eligible to take that examination until at least one year of internship has been served in an approved hospital following graduation from medical school.

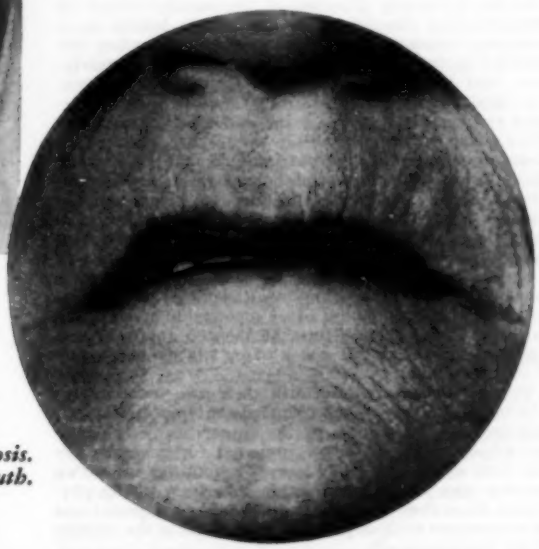
Oklahoma also has a Basic Science Law which requires

STUDIES IN THE AVITAMINOSES

This page is the eighth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the July 20 issue of The Journal of the American Medical Association.

Coexisting riboflavin deficiency and pellagra, showing cheilitis and the characteristic glossitis.

THE manifestations of riboflavin deficiency in man have been recognized as such only recently. Frequently they occur in conjunction with pellagra, and consequently the characteristic lesions may not be apparent until the pellagra has been overcome.



The cheilitis of ariboflavinosis. Note fissures at angles of mouth.

The Clinical Manifestations of Riboflavin Deficiency

THE most prominent lesion of riboflavin deficiency is a cheilitis characterized by reddening of the lips due to exfoliation of the epithelium, and radiating fissures at the angles of the mouth. There may also be seborrheic lesions in the nasolabial fold and on the alae nasi. According to Krause, Sydenstricker, Sebrell, and Cleckley, riboflavin deficiency produces a magenta color of the tongue. As stated by these investigators, when riboflavin and nicotinic acid deficiencies occur in the same individual, the fiery red tongue of pellagra may change under the influence of nicotinic acid to a magenta color which disappears only after riboflavin therapy.

UPJOHN

that no physician can appear before any licensing Board for practice in the State of Oklahoma until able to present a certificate of proficiency from the Basic Science Board of the State of Oklahoma or some other State. This examination is searching and determines the knowledge in the basic sciences of each person who appears before that Board. No one can pass the examination unless he or she is an educated person and well-grounded in the sciences. These basic science requirements, the necessity of serving a year's internship before appearing before a State Board for a license to practice, the high standards set up for admission to a medical school, and that have to be maintained in order to be able to remain in medical school until graduation, are all set up with one objective; namely, the protection of the public.

Internships following graduation must be served in approved hospitals, that is, hospitals which are approved for intern training by the American Medical Association and the Association of American Medical Colleges which set the standards both for the United States and the Dominion of Canada in these respects. The minimum time requirement for an internship in an approved hospital is one year.

In the University Hospital of the medical school in Oklahoma City the internship is what is known as a "two-year rotating." The two years of service are divided into twenty periods of about thirty-six or thirty-seven days duration each and cover the different branches of medical practice. Naturally, more periods are devoted to general surgery and internal medicine than the others, but definite periods of service are required in Obstetrics, Gynecology, Pediatrics, Orthopaedics, Dermatology, Plastic Surgery, Ophthalmology and Otolaryngology, Urology, Anesthesiology, Roentgenology, and Tuberculosis. Beginning with the fiscal year July 1st, 1941, one of these periods will be devoted to service in a large hospital for "mental diseases."

The two-year rotating internships are becoming more popular throughout the country, although as yet the majority of hospitals only offer one year of rotating service. At the present time, of the 765 approved hospitals (2) there are 151 which offer two or more years of intern training.

Young physicians who finish their two-years internship in the University and Crippled Children's Hospitals each year, in the opinion of the authorities of the medical school, are much better prepared for general practice than any group which serves a rotating internship for only one year. It is certain that these young physicians when they enter upon practice are competent and safe to render skillful professional service to the citizens of the Commonwealth.

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(1) This is much higher percentage than in the case of state university medical schools.

(2) i.e., approved for training of interns out of the large number approved as hospitals.

Group Hospital Service News

Group Hospital Service presents to you the names of some of the firms and organizations which have cooperated in bringing this protection to 7,000 Oklahoma people.

Adams Hotel.
Adams and Leonard.
American First Trust Company.
Beatrice Creamery Co.
Chamber of Commerce, Oklahoma City.
Central Sales Promotion.
Community Fund Agencies.
Crane Company, The
Deep Rock Oil Corporation.
Department of Public Assistance.
East Central State Teachers College.
Fire Companies Adjustment Bureau.
Froug Company, Inc., The
First National Bank, Oklahoma City.
Gates Hardware Company.
Group Hospital Service.
Hale-Halsell Company.
Haskins and Sells.
Hughes Tool Company.
Indian and Forest Service.
Industrial Printing Company.
International Business Machine Corp.
Langston Company.
Lee School.
Leland Equipment Company.
Liberty Mutual Insurance Company.
Maloney Tank Company.
Massachusetts Mutual Life Ins. Co.
Mayo Furniture Company.
Medical and Dental Assistants.
Moorlane Company.
National Bank of Commerce.
National Bank of Tulsa.
Northwestern Mutual Life Ins. Co.
Northwestern State College.
Oilwell Supply Company.
Okla. Coca Cola Bottling Co.
Oklahoma County Medical Assn.
Okla. District Headquarters C.C.C.
Oklahoma State Health Department.
Oklahoma State Medical Assn.
Osage Indian Agency.
Pacific Mutual Life Ins. Co.
Penney, J. C. & Company.
Retail Merchants Association.
Rothenberg & Schloss.
Sears, Roebuck & Company, Tulsa
Sears, Roebuck & Company, Oklahoma City.
Seidenbach's, Inc.
Skelly Oil Company.
Spartan School of Aeronautics.
Spartan School of Aeronautics—Army Division.
St. Anthony's Hospital.
Sutherland Lumber Company.
Texas Company, The
Tide Water Associated Oil Co.
Tulsa Chamber of Commerce.
Tulsa County Dental Society.
Tulsa County Medical Society.
Tulsa Daily World.
Tulsa Federal Savings & Loan Assn.
Tulsa Public Library.
Union Bus Terminal.
U. S. Bureau of Mines.
U. S. Engineer Office.
U. S. Post Office Employees.
United Brick & Tile Company.
Von Wedel Clinic.
Waite Phillips.
Washington-Nowata County Medical Society.
Wesley Hospital.
Woolf Brothers.
Woolworth, F. W. & Company, Tulsa.
Woolworth, F. W. & Company, Oklahoma City.
W. P. A. Library Service.
Y. M. C. A.

Fifty hospital bills have been paid. The longest hospital stay was twenty-two days and the shortest was one day. The average period of confinement to a hospital has been 7 6/-0 days.

The service is being gradually expanded geographically toward the objectives of statewide service. Enthusiastic community reception has exceeded all expectations. Local medical societies, Chamber of Commerce, civic and service organizations have voluntarily united their sources and influences as a means of public education and of serving their people through this low-cost plan. The establishment of local civic and advisory councils has contributed much to economy, expediency and effective service.

• OBITUARIES •

Dr. Samuel Jacob Fryer
1876-1940

Dr. Samuel Jacob Fryer was born in Fern Creek, Kentucky, on November 20, 1876, was educated in his local schools, and thereafter attended Centre College in Danville, Kentucky, from which he received his Bachelor of Arts degree. He afterward attended Hospital College of Medicine in Louisville, Kentucky, where in 1902 he received his Doctor of Medicine degree.

Doctor Fryer began practice in West Virginia as company surgeon for the Norfolk & Western, Railroad, extending from Bluefield to Cincinnati. He came to Muskogee in 1909 to enter practice, which he continued until his demise on Wednesday afternoon, June 19, 1940, after a prolonged illness. Doctor Fryer was not only a member of the Muskogee County Medical Society, where he had filled many semi-official honors on various committees and assignments, but also was a member of the Southern Medical Association and the American Medical Association. He also served his country as Captain in the World War and was a member of the American Legion. He was a Master Mason, a Shriner, and was an active member of the First Presbyterian Church.

His body was interred in Greenhill Cemetery in Muskogee, with Dr. Walter G. Letham, his pastor, officiating.

Dr. Fryer's passing removed from our membership, associations, daily experiences firstly, a well born gentleman, high class American citizen, honorable, ethical, well-versed able fellow practitioner, colleague, and friend, but one who stood for highest of ideals, practices, and intentions conceivable, so that his unshirking devotion, attention, assistance, efforts, etc., will be greatly missed, his timely good advice felt, in the remaining years we, his survivors carry on.

Therefore, it is the sense, desire and will of the Muskogee County Medical Society that these feeble words of respect, admiration, regret, sympathy, condolence, etc., be extended to his survivors, (wife, son Dr. S. R. Fryer of Oklahoma City, Mrs. Slaughter of Milwaukee, Alice of the home, and a brother, Dr. C. M. Fryer of Louisville, Ky.) in this hour of sadness with the hope that all may obtain solace in his many virtues, and accomplishments, and his present freedom from suffering, believing and trusting in Him on high, who knows and does all things well, that a meeting will be effected in the Great Beyond, where happiness, comfort, satisfaction knows no bonds. The Muskogee County Medical Society, collectively and individually, expresses its sorrow and sympathy to his bereaved, with the wish that a copy be sent the family, also spread upon the meeting's minutes.

I. B. Oldham, Jr., M.D., President
Shade D. Neely, M.D., Secretary
O. C. Klass, M.D., Chairman Necrology Committee.

Dr. Robert E. Thacker
1865-1940

Dr. Robert E. Thacker, widely known pioneer physician of Cleveland county, succumbed to a few weeks' illness July 10 in an Oklahoma City hospital, leaving a host of friends to mourn his passing.

Funeral services were held July 11 at the Thacker home in Lexington, with the Rev. M. A. Cassidy of Caddo officiating, assisted by the Rev. R. O. Stewart of Lexington. The American Legion posts of Cleveland and McClain counties conducted burial rites at Lexington.

Doctor Thacker was born in Henderson County, Texas, living there as a youth and later going to Louisville Medical College, from which he was graduated. He came to Indian Territory in 1889, practicing medicine in Purcell two years before moving to Lexington, where he had lived until his death. He was a major in the medical corps in the World War, was a member of the India Temple Shrine in Oklahoma City, and a member of the American Medical Association as well as the state and county associations.

Surviving are his wife, Mrs. Mary B. Thacker; two daughters, Mrs. Mabel Hobson of Oklahoma City and Miss Grace Thacker of the home.

According to a tribute by friends, one has only to talk with residents of the south end of Cleveland County or across the river in McClain county to know what Doctor Thacker's years of service meant in that section. The doctor, beloved by many, always declined to discuss himself or his practice. He preferred to "raise apples for children to eat" rather than talk about himself. In addition to his practice, he operated an orchard of approximately 130 acres near Lexington.

A number of members of the medical profession in Cleveland and McClain counties served as honorary pallbearers at the funeral rites.

Medical Board Celebrates Anniversary

The National Board of Medical Examiners celebrated the twenty-fifth anniversary of its founding at a dinner at the Waldorf-Astoria, New York, June 12.

The board, founded in 1915 by Dr. William L. Rodman, Philadelphia, has received support from six foundations: Carnegie Foundation for the Advancement of Teaching, Rockefeller Foundation, Commonwealth Fund, Milbank Memorial Fund, General Education Board and the Carnegie Corporation. Its certificate is now accepted by forty-three states, the territories of the United States and several foreign countries. It now has thirty-two members.

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Red Cross Plans Enrollment Of Volunteer Blood Donors

The American Red Cross, acting at the request of the Surgeon General of the U. S. Army, has announced experimental plans for the promotion of a nationwide corps of volunteer blood donors which would become part of the national defense program, when and if needed.

Chairman Norman H. Davis, in announcing the proposed program, declared the plan would be to make available blood plasma to the U. S. Army Medical Corps in the event of emergency. For the past four years, he said, twelve Red Cross chapters have been furnishing whole blood from volunteers to hospitals for civilian use. The new program will be patterned along similar lines, using plasma instead of whole blood, it was explained.

The American Red Cross also has under consideration a parallel project to furnish voluntary plasma requested by the British Red Cross for the treatment of war victims, Chairman Davis said.

Details of this project are being studied, Mr. Davis said. Two possible palns are being explored. Under the first the American Red Cross would gather voluntary plasma in the United States and fly it to Europe for transfusion purposes. Under the second plan, which Mr. Davis indicated seemed to be more feasible, the American Red Cross would send equipment and technicians to England to gather the plasma on the spot.

For the domestic program, a preliminary study involving 1,300 Red Cross volunteers in four cities throughout the country will be conducted under the direction of a special committee appointed by the National Research Council, Chairman Davis said.

Dr. William DeKleine, national medical adviser of the Red Cross, said that the proposed plan for collecting blood was patterned after the blood bank idea except that plasma will be used instead of whole blood. "Plasma," he pointed out, "has many advantages over whole blood. The latter can be kept only a few days because the red blood cells deteriorate very quickly. Plasma can be kept indefinitely, does not require typing, and can be moved about freely without any damage to it. It can be transported any distance and is therefore applicable in military as well as civilian practice.

"Preliminary studies must be made to perfect methods of collecting, storing and administering plasma under conditions comparable to war-time emergency. Blood for this initial study will be furnished by volunteers at the various hospitals where members of the Research Committee are regularly employed. The plasma collected will be stored and used as emergencies arise at these hospitals."

After these preliminary investigations have been completed, the Red Cross will then work out with the medical department of the Army plans for enrolling prospective donors in cities throughout the country where collecting centers will be established. In the event of an emergency, the Red Cross could start delivering plasma within ten days after enrollment is completed. Dr. DeKleine said. Blood so collected will be pooled in large sterile containers, to simplify storage, in sufficient quantities to meet the emergency needs for treating the wounded.

Recruiting donors will be conducted by a special chapter blood transfusion committee which will include leading local physicians. The technical phases of the project will be performed by the medical staff of the cooperating hospitals. They will examine the prospective volunteers, make the necessary blood tests as well as doing the actual transfusions.

This blood transfusion project will be another step taken by the Red Cross in its preparedness program for national emergencies. It will function in close cooperation with the medical departments of the military forces, Dr. DeKleine said.

Dates Set For Obstetrics and Gynecology Examinations

The annual written examination and review of case histories (Part I) for Group B candidates of the American Board of Obstetrics and Gynecology will be held in various cities of the United States and Canada on Saturday, January 4, 1941, at 2:00 p.m. Candidates who successfully complete the Part I examinations proceed automatically to the Part II examinations held later in the year.

The following action regarding case records to be submitted by candidates taking the Group B, Part I, examination was passed by the Board at its annual meeting in Atlantic City, N. J., on June 6, 1940: "Case records submitted by candidates must be of patients treated within four years prior to the date of the candidate's application. The number of cases taken from one's residency service should not be more than half (25) of the total number of fifty (50) cases required."

Applications for admission to Group B, Part I, examinations must be on file in the Secretary's office not later than October 5, 1940.

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted by the entire Board, meeting at Cleveland, Ohio, immediately prior to the June, 1941, meeting of the American Medical Association.

After January 1, 1942, there will be only one classification of candidates, and all will be required to take the Part I and Part II examinations.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

In response to numerous inquiries regarding special training requirements, the Board desires again to announce that there are three methods of meeting these requirements for admission to the Board examinations. First, by the residency system; second, by the partial residency and partial assistantship method; and third, entirely by the assistantship or "preceptorship method."

The Board will accept in lieu of the formal residency service the training acquired by a candidate serving on an assistant or dispensary staff of an obstetrical and gynecological division of a recognized obstetrical-gynecologist (preferably a Diplomate). The time required for this type of training must be longer than with the formal, more intensive residency type of training, and the allowance of time depends upon the duties and responsibility given the candidate. Applicants lacking all formal special training should have a minimum of five years of hospital clinic, or assistant staff appointments in the specialty, under approved direction. Teaching appointments without accompanying hospital staff or clinical appointments will not satisfy the Board requirements. A special form amplifying the original application must be filled out to cover the details of such assistantship, or preceptorship type, of training. The Board approves for special training, work done in institutions approved jointly by the Board and by the Council on Medical Education and Hospitals of the A. M. A.

Cerevim Corporation Introduces New Product

A new product, "Betamin" (Thiamin Wafers), has been introduced by the Cerevim Products Corporation, 100 Sixth Avenue, New York, N. Y. According to the corporation, each wafer contains 100 International Units (.3mg.) of Vitamin B1 and is low in caloric value (15 calories per wafer). The wafers are issued in hermetically sealed tins (approximately a thirty-day prescription) and available at leading pharmacies. The product has been accepted by the Council on Foods of the American Medical Association. The corporation invites physicians to mail their prescription blanks for professional samples and literature.

Cancer Data Released by Bureau of the Census

Interesting data on cancer mortality in the United States for the years 1934-38 recently has been released by the Bureau of the Census and published in the National Bulletin of the American Society for the Control of Cancer.

A total of 149,214 deaths from cancer was recorded in this country in 1938, of which 69,857, or 47 per cent, occurred in males, and 79,357, or 53 per cent, in females (the respective distribution of the population by sex in 1930 being 50.6 and 49.4).

The recorded mortality from cancer and other malignant tumors of all sites, which has been shown to have increased in the registration States of 1900 from 68.3 in 1900 to 120.6 in 1935, even with the changing age composition of the population taken into account, has shown a further continuous increase during the period 1934-38. During the four-year interval, the increase in recorded mortality from cancer amounted to 10.5 per cent, as compared with an estimated increase of 2.8 per cent in the population. An increase of 13 per cent is shown for males as compared with 9 per cent for females.

The largest percentage increase was recorded for cancer of the respiratory system (52 per cent for males and 39 per cent for females), while the only broad classification groups showing a decrease were cancer of the buccal cavity and pharynx (for both sexes) and cancer of the skin (for males only).

Cancer of the digestive tract and peritoneum was the most important group from the standpoint of number of deaths, causing 47 per cent of the total cancer mortality in 1938. The number of deaths from cancer of the various sites grouped in this classification increased 9.3 per cent for males and 6.8 per cent for females during the four-year period. Deaths from cancer of the genitourinary organs (uterus excluded) increased by about 20 per cent for both sexes. In females, cancer of the uterus (which caused 20 per cent of all cancer mortality in that sex in 1938) increased 4 per cent, while cancer of the breast, also a numerically important cause of cancer mortality in women, increased 10 per cent during the four years.

Sharp Increase in Poliomyelitis in 1939

A sharp increase in the number of cases of poliomyelitis was reported in 1939 over the total recorded in 1938, according to figures released by the U. S. Public Health Service. There were 7,272 cases in 1939 as compared with 1,705 cases in 1938. The latter was considered a year of unusually low incidence.

In 1939 the distribution of the disease was characterized by a number of localized outbreaks in various sections of the country in addition to a fairly widespread occurrence in the mountain states. The case rate was highest in New Mexico, South Carolina, Arizona and Minnesota, followed by Michigan, Utah and California. The most extensive area included a group of counties in Arizona, Utah, New Mexico, Colorado and northwestern Texas.

NEW COMBINED METHOD EXPOUNDED FOR TREATING DIPHTHERIA OR TETANUS

A method for effectively treating persons who have been exposed to diphtheria or tetanus before they become ill with either disease has now had its efficacy thoroughly established, Gaston Ramon, M.D., Garches, France, reports in *The Journal of the American Medical Association.*

The method involves the administration of antitoxin, which in itself combats the disease, followed by injections of toxoid which stimulate the body in developing its own defense mechanism. Heretofore it has been impossible to stimulate the individual's own immunity in such a short time.

The doctor points out that this method for tetanus has great importance because of the present European conflict.

The method not only provides an effective means of combating the disease but also produces lasting immunity with speed and safety.

"Tests made on soldiers showed that an active antitetanic administration could be realized by simultaneous injections of antitetanic serum and toxoid." Dr. Ramon says, "followed by one or several doses of toxoid at more or less long intervals.

"Animal studies and numerous investigations in human medicine," he points out, "have given proof that combined immunization when correctly applied by one injection of antitoxic serum and repeated injections of specific toxoid is able to superimpose uninterruptedly active immunity on passive immunity, thus insuring a permanent antitoxic immunity against tetanus or diphteria. Such immunization is the best preventive measure again tetanus for the nonvaccinated wounded patient and against diphtheria for the nonvaccinated child who runs a special risk of infection. It gives a better chance of success in the treatment of tetanus and diphtheria."

Collection on Gastronomy Given Library

A collection of books on gastronomy has been given to the Library of Congress, Washington, D. C., by Dr. Arvill W. Bitting, food technologist of San Francisco, in memory of his wife, Katherine Golden Bitting, who died in 1937. The collection was assembled during their lifelong investigations into the chemistry, bacteriology and history of foods.

The Library of Congress has agreed, as an exception to its usual procedure, to establish the Katherine Golden Bitting Collection on Gastronomy as a separate unit among its collections, where it may be readily available, in conjunction with her bibliography, to present and future students in the field to which she so fruitfully dedicated her life, according to an announcement.

Mrs. Bitting graduated at Purdue University, remaining there as an instructor and assistant professor in botany and biology; in 1904 she married Dr. Bitting, her lifelong collaborator in her work on foodstuffs, also at that time a member of the Purdue faculty. In 1907 both joined the staff of the bureau of chemistry of the U. S. Department of Agriculture.

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Eye Physician Gives Advice on Selections of Sun Glasses

Sun glasses should be worn only when you are in the bright sun and should not be used for night driving, says Dr. Arno E. Town of New York City, in the current issue of The Sight Saving Review, quarterly journal of the National Society for the Prevention of Blindness. Dr. Town is a member of the Society's Medical Committee.

"In a survey which I have made of a representative group of ophthalmologists throughout the country," Dr. Town remarked, "the results show unanimous agreement that sun glasses should be worn only in the bright sun. Fifty per cent are of the opinion that they may be harmful if used otherwise. Furthermore, all the eye physicians agree that only ground and polished glasses should be worn.

"There are so many different types of sun glasses sold under so many different names, many of which are very similar and produce the same effect, that it is easily understood why the public may be in a dilemma. First of all, the material in this article is confined to sun glasses and does not include protective glasses required in industries nor the tinted glasses which are prescribed as a part of the treatment of eye diseases.

"Last summer, a fad of wearing colored glasses was created by movie stars and other prominent persons who got behind the smoked goggles at first to hide, and then continued to wear them because of the air of mysterious glamor they afforded. The more hideous and streamlined were the blinders, the smarter they were considered, and many girls had differently colored ones to match their wardrobes.

"Inferior quality sun glasses, made from celluloid, poor blown or pressed glass, will add irregular astigmatism, myopia, hyperopia, or prismatic imbalance to the refractive mechanism. Consequently, they only increase the strain produced by the glare. The best advice to give on this score is: Buy your sun glasses from a reputable optician and insist upon good quality ground and polished protection lenses, and, if necessary, ground with your correct distance prescription.

"Some advice which may save you trouble is that sun glasses are designed for day wear and should not be worn for night driving as they lower the visibility too much. As yet, no glass has been made which will overcome the glare of auto headlight and still be safe.

"Many people, in long distance auto driving, suffer headaches and eye strain which they believe can be corrected by sun glasses; but some people who are sensitive to light have a refractive error or some other sources of eyestrain. Hence, in many cases, glasses skillfully correcting the refractive error relieve most of the cause of subnormal light tolerance, which is the complaint of the majority of persons wearing tinted lenses.

"We have heard considerable criticism of sun glasses to the effect that they become habit-forming. Just what is meant by habit-forming is not clear. Certainly they will not cause an atrophy of the color sense. However, if worn unnecessarily and continuously they may lower one's tolerance to light and instigate a discomfort in moderate illumination.

"In choosing a sun glass, remember that all good quality absorptive and sun lenses on the market are of value and will serve your purpose as a glass for beach, snow, and bright summer day wear. When you are buying a pair of sun glasses, step outside on the sidewalk and try them on to see if they will suit your purpose.

Assistant Surgeon General Appointed

Brig. Gen. Shelley U. Marietta, Medical Corp, U. S. Army, has been appointed assistant to the Surgeon General of the Army. General Marietta was graduated from the University of Illinois School of Medicine, Chicago, in 1909 and from the Army Medical School in 1912. He has served at various stations in the United States, in the Philippine Islands, in France and in Hawaii.

Black Widow Spider Antivenin Available

Now that summer weather is with us again, there is one summer visitor which will turn up somewhere, sometime, and let her unwelcome presence be known—the black widow spider.

This dangerous member of the spider family with the bright red hour-glass marking on her abdomen is distributed over most of the United States. Many bites occur every year with several deaths resulting.

Last year, the Mulford Biological Laboratories of Sharp & Dohme introduced a black widow spider antivenin which is indicated in the specific treatment of the effect of the venom from bites of this spider. It is supplied in lyophilized form so that its potency is assured for five years. With this specific antivenin now available for distribution throughout the country it will prove a helpful aid in preventing the serious toxic effects and possible deaths which follow the bites of the black widow.

Placement Bureau for Radiologists Established

The American Registry of X-Ray Technicians announces the establishment of a placement bureau. The services of the bureau will be limited to physician-radiologists of approved standing and x-ray technicians who have been certified by the registry. It will operate without fees.

Applicants for positions will be classified according to their added abilities as nurses, laboratory technicians or other qualifications. Physician-radiologists wishing to register a vacancy for an x-ray technician with the placement bureau may do so by writing to Alfred B. Green, R. T., executive secretary, American Registry of X-Ray Technicians, Oak Terrace, Minn.

Thoracic Surgery Prize Awarded

The American Association for Thoracic Surgery awarded the first Rose Lampert Graff prize of $250 to Dr. Paul W. Gebauer, Cleveland, at its meeting in Cleveland in June for a paper on cancer of the lungs. Dr. Gebauer graduated from Western Reserve University School of Medicine, Cleveland, in 1933. The prize was given by the Rose Lampert Graff Foundation of Los Angeles, established in 1939 by Mr. and Mrs. Ellis Levy in memory of Mrs. Levy's mother. Dr. Jacob J. Singer, Los Angeles, is director of the fund. The foundation offers a similar prize through the American Association for Thoracic Surgery for 1941. Any one who wishes to submit a paper should send it to Dr. Richard H. Meade, Jr., secretary, 2116 Pine Street, Philadelphia.

Injections Aid Muscular Weakness

Improvement or recovery of six patients from muscular weakness and incoordination occurred after injections of vitamin B6, William Antopol, M.D., and Clement E. Schotland, M.D., Newark, N. J., report in *The Journal of the American Medical Association.*

The condition of the patients before treatment with vitamin B6 was characterized by a waddling gait, difficulty in rising from the sitting and reclining positions, fatigue on walking and general bodily muscle weakness. In addition to the foregoing symptoms some of the patients also had a forward curvature of the spine.

All or some of these symptoms were no longer complained of after treatment. Improvement was stationary in five patients; relapse, with a continued downward course, occurred in one patient.

The technical term for the disorder of these patients is pseudohypertrophic muscular dystrophy.

"In view of the promising results, though the patients have not been cured and are still under treatment," Drs. Antopol and Schotland say, "this form of therapy is being studied further and is also being investigated in conjunction with other vitamins, particularly E and riboflavin (a constituent of the vitamin B complex), and with the drugs, aminoacetic acid and ephedrine."

Federal Law Applies To Cosmetic Claims

"Nourishing cream," "deep pore cleanser," "skin food," "hair color restorer" and "nonallergic" products are some of the cosmetics which the American woman (and, incidently, the manufacturer of cosmetics) may have to give up, due to the passing of the Wheeler-Lea Act and the new Food, Drug and Cosmetic Act in 1938, according to the editor's note in an introduction to an article by Howard Fox, M. D., New York, in the April issue of *Hygeia, The Health Magazine.*

Although actual damage to the skin from cosmetics is relatively uncommon, manufacturers still make many ridiculous claims and misleading statements regarding the skin and its susceptibility to cosmetics. Improper brand names are one example. In addition to the aforementioned, the introduction cites the following examples of misleading labels: "rejuvenating cream," "scalp food," "circulating cream," "muscle oil," "stimulating cream" and cosmetics represented as valuable because of their vitamin content.

In his discussion of unwarranted statements by advertisers of cosmetics, Dr. Fox points out that references to the skin as an organ of "exquisite delicacy" have helped to promote the idea that in order to maintain a "tender skin," which has come to be considered a mark of aristocracy, one should not wash the face with soap and water. Actually, he says, "the skin is a waterproof covering which is extremely tough and resistant and able to withstand an incredible amount of abuse and injury."

"The statement that cosmetic preparations preserve the skin is frequently made and in my opinion is untrue. If it is true, as it has often been said, that men (who use no cosmetics) have as good a complexion as women (who do), then the argument that cosmetics preserve the skin is completely shattered.

"A perfect example of cosmetic fallacy is furnished by the words 'nourishing cream'. Needless to say, no such thing exists. Your skin is nourished in exactly the same manner as your muscles, bones, internal organs and other parts of your body—solely by the food that is taken into your stomach.

"The word 'pores' has proved to be a gold mine to the cosmetic industry. Cosmetic advertising says that all you need to close the pores of a coarse skin is an application of the magic astringent. This, of course, is not true, as they cannot be closed by any method of treatment."

Regarding so-called "muscle oils" and "wrinkle removers," Dr. Fox declares that "no preparation applied to the skin has any effect on the muscles of the skin. Nor will any cream do away with wrinkles, which are due to disappearance of the natural fat under the skin and a lessening of the tension of the skin.

"Such terms as 'tinting' the hair, which of course means dyeing, or 'restoring' the color of the hair are substituted for 'dyeing' in advertising copy. Hair preparations which change the color of the hair either dye or bleach it. Both of these products are harmless in the majority of cases. Mention should be made, however, of one of the most dangerous drugs to use for the hair, namely paraphenylendiamine. This was the main constituent of a certain dye for the eyelashes which caused a number of cases of blindness and one death.

"Freckle removers constitute another type of cosmetic preparation that is essentially fraudulent. Temporary freckles disappear largely after summer; permanent freckles cannot be safely removed by lotions or creams.

"Some persons have a notion that a transparent soap must be unusually pure. This is not always true, as such soaps require special handling in their manufacture and may be less reliable than those which are opaque.

"The buyer should beware of freak soaps and those for which extravagent claims are made. Medicated soaps have only limited value at best, in the opinion of the medical profession."

Drugs Valuable in Hypertension Treatment

Although there is no medicinal cure for hypertension (high blood pressure), the medical treatment has resolved itself into the establishment of the most perfect possible physical and mental control of the patient, and in this treatment scheme drugs are important for the achievement of the best results, Herman O. Mosenthal, M.D., New York, declares in *The Journal of the American Medical Association.* His article is one of the series written by eminent authorities on the uses of official and other medicines, developed through the cooperation of the U. S. Pharmacopeial Committee of Revision and *The Journal,*

Dr. Mosenthal points out that there are three elements involved in treating hypertension: medicinal, hygienic and surgical. His paper concerns only the medicinal treatment.

Because the mechanism involved in high blood pressure or hypertension is not fully understood, present methods of treatment are concerned with the relief of symptoms. Thus the main objectives are to avoid nerve tension and strain during the day and make certain of satisfactory sleep at night. Sufficient rest, relief from excessive responsibilities and pleasant recreation are recommended. Dr. Mosenthal also suggests two hours' rest after lunch without interruption, eight hours in bed at night, and participation in the usual activities during the rest of the day, avoiding any exertion that might cause shortness of breath. A productive, sedentary routine occupation as a rule is more desirable than permanent retirement.

It is also important to maintain the blood pressure at a level sufficiently low to avoid the secondary changes that are often the cause of death when the pressure is persistently elevated. Disorders of the heart or brain are the most important of these changes.

"The generally accepted explanation for an elevation of the blood pressure is an increase in the resistance to the arterial flow caused by a constriction of the small arterial branches at the distal (remote) part of the circulation," Dr. Mosenthal explains. "Whether this is the reason for the hypertension or is a secondary, compensatory effect to hypertension, resulting from disturbed activity of the heart and muscles of the larger arteries, will make an enormous difference in the reasoning that governs the application of drugs." Present conceptions, he points out, can serve as working hypotheses but nothing more than that.

Some types of drugs act by directly dilating and thus relaxing the arterial branches. Among these are the nitrites, including amyl nitrite, glyceryl trinitrate, sodium nitrite, etc. Others, however, such as the bromides, barbiturates and chloral hydrate, affect the arterial branches indirectly by depressing the central nervous system. In a third class are the thiocyanates and iodides, which have been helpful in relieving the symptoms of hypertension although their mode of action is largely unknown.

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Respiratory Infection—Rheumatic Fever

Careful investigation for infections of the upper respiratory tract should be a routine measure in the prevention of recurrences of rheumatic fever, Russell L. Cecil, M. D., New York, declares in *The Journal of the American Medical Association*. His article on the treatment of this disease is one of a series of papers, developed through the cooperation of the U. S. Pharmacopeial Committee of Revision and *The Journal*, concerning the uses of official and other medicines.

Discussing the close association of rheumatic fever with infections of the upper respiratory tract, Dr. Cecil states: "In more than 50 per cent of cases the onset of rheumatic fever is preceded by tonsillitis or a sore throat. In others, there is a preceding history of sinus infection, middle ear infection, bronchitis or pneumonia.

"Tonsils showing any evidence of disease should be removed promptly. The sinuses and teeth should also be investigated for possible infection. Children with a tendency to rheumatism should be carefully protected against exposure to cold and dampness. Sleeping in wet clothing or getting chilled when fatigued predisposes to respiratory infection with possible rheumatic consequenses."

Recent studies indicate that the use of sulfanilamide offers real promise as a practical measure for preventing recurrent attacks of the disease, Dr. Cecil says.

A warm climate is a valuable aid in preventing recurrences. For children who cannot have this advantage, prophylactic inoculations with streptococcus vaccines are worth trying. Good personal hygiene is of great importance.

Dr. Cecil points out that rheumatic fever may affect either the joints or the heart. In adults, joint symptoms predominate, while in children, those referable to the heart are the more conspicuous. Once a child has rheumatic fever, there is always danger of damage to the heart. However, in many cases the amount of damage inflicted by the first attack is minimal and can be completely outgrown if the after-care of the patient is properly controlled.

Although rheumatic fever is still classified as a disease of unknown origin, Dr. Cecil says, authorities are pretty well agreed that it is infectious, and many students are convinced that it is closely associated with streptococcic infection. Whether the various inflammatory lesions are the actual sites of infection or whether they are the expression of some toxic reaction is still a matter for investigation.

While many efforts have been made to develop a specific treatment for rheumatic fever, none of those yet offered has given definitely satisfactory results. At present complete rest is the keynote of treatment for rheumatic fever affecting the joints. Local applications are often useful in relieving the pain. Although physical therapy does not play an important role in the treatment of the acute phases, treatment by heat, water or infra-red or ultraviolet rays may be used in cases in which the joint symptoms become chronic. Massage, passive movements and fever treatment may be of value in the chronic form.

Many drugs have been found valuable in rheumatic fever, especially the various compounds of salicylic acid. The after-care is of the greatest importance in view of the grave danger of relapses and further recurrences of the disease.

Facial Neuralgia Relieved By Vitamin B1

Fifty-two patients out of fifty-eight obtained relief from twitching facial neuralgia, known as tic douloureux, by treatment with vitamin B1, Henry Borsook, Ph.D., M. Y. Kremers, M.D., and C. G. Wiggins, D.D.S., Pasadena, Calif., declare in a recent issue of *The Journal of the American Medical Association*.

The authors point out that their study was prompted by a desire to find some alternative to the most effective treatment yet available for tic douloureux, partial or total severance of the sensory route of the involved nerve. They say that: "Adequate surgical treatment is not available to many sufferers with this disease; in some the pain, though extremely troublesome, is hardly so severe as to persuade the patient to submit to the necessary operation.

"Present palliative treatments of trigeminal neuralgia are, on the whole, unsatisfactory. Inhalation of trichloroethylene, which relieves some sufferers at first, frequently becomes totally ineffective later. The other commonly used palliative treatment, alcohol injection of the trunk of the nerve(often affords relief repeatedly for periods varying from months to years. Yet many patients have reported to us their failure to obtain relief from alcohol injection. Whether this was the fault of the operators or of some peculiarity of their condition we were unable to determine.

"The advantages of the treatment which we have evolved are that it is available everywhere or can be easily made so, and that it can be administered by any practitioner and, with some instruction, even by the patient himself."

Together with the vitamin by vein the patients were put on diets high in vitamin and low in carbohydrate. The patients not relieved by this combination treatment were given injections of concentrated liver extracts. Another supplement to the treatment of all the patients was 1 ounce of concentrated rice polishings. This supplied daily 1,500 units of vitamin B1.

Discussing the length of time necessary for improvement to occur with this type of treatment, the California workers say: "There is great variation in the speed at which different patients respond to treatment. Taking all the subjects together the time varied from one to six months. We have not as yet found anything in the symptoms or clinical history from which we can predict the course of recovery of any patient. Age, sex, severity or duration of symptoms and clinical history afford no criterion.

"The present indications," the authors continue, "are that in a minority of cases significant improvement is not obtained without liver treatment but that by this additional treatment the period in which the vitamin B1 treatment is required is not shortened.

"Two features have characterized the course of recovery in nearly every case," they explain. "The first is that, after the sharp stabbing or burning pain has stopped, the patients report a persistent soreness over a fairly wide area which includes the 'trigger point' (a point of irritation causing pain in another area). Unlike the paroxysms of sharp pain, the soreness is felt most of the day. Gradually the area of soreness is reduced; the areas from which it disappears last are the trigger points. At the same time the soreness becomes less severe, is experienced for a shorter time each day and finally disappears entirely.

"A second common feature in the course of recovery is that relapses occur. These become progressively less severe and of shorter duration."

The authors state that at least another year of observation will have to elapse before a satisfactory answer can be given as to how permanent the relief will be. At present they believe that "those who respond quickly (within one month) may be maintained free from pain by taking daily the 1 ounce of the concentrated rice polishings we have been using. Our present limited experience indicates that those who respond slowly will continue to need injections of vitamin B1 indefinitely. The price of vitamin B1 is continually declining, so that this need not be prohibitively costly."

Potassium Salt and Hay Fever

Potassium salts have no practical value in the treatment of hay fever and seasonal asthma, Simon S. Rubin, M.D., Abe L. Aaronson, M.D., Morris A. Kaplan, M.D., and Samuel M. Feinberg, M.D., Chicago, report in *The Journal of the American Medical Association*. Their conclusions are based on studies of results of such treatment in 153 victims of hay fever and asthma. The symptoms of a few of their patients, the authors state, were made worse by the salts.

ABSTRACTS : REVIEWS : COMMENTS and CORRESPONDENCE

SURGERY AND GYNECOLOGY

Abstracts, Reviews and Comments From
LeRoy Long Clinic
714 Medical Arts Building, Oklahoma City

"The Anaerobic Streptococci In Tubo-Ovarian Abcess." By W. A. Altenmeier, M.S., M.D. Detroit, Michigan. American Journal of Obstetrics and Gynecology. June 1940, Vol. 39, No. 6, Page 1038.

"The chronicity of tubo-ovarian abscesses is an old problem. In the twenty five consecutive cases of this study, positive bacterial cultures were obtained from the pus in twenty-three, contrary to the usually accepted idea that such pus is sterile. The anaerobic streptococcus was by far the most frequently encountered organism, being found in pure or mixed culture in twenty-two of the twenty-three positive cultures."

Negative cultures were fonnd in only two of the twenty-five cases.

The author stresses the value of routine anaerobic as well as aerobic cultures in tubo-ovarian abscess and also the importance of immediate cultivation and long incubation.

He discusses the pathogenicity of these anaerobic streptococci for man and feels that, though it has not been proved, it is suggestive that they do have a pathogenicity.

"The presence of micro-organisms growing in the pus of chronic tubo-ovarian abscess would seem to explain the characteristic recurrent attacks better than the assumption that the abscess becomes repeatedly reinfected from without."

Comment: This is a most interesting study largely because the generally accepted idea that the pus in tubo-ovarian abscess is sterile has materially influenced the type of treatment that these individuals receive.

As this author points out there have been numerous investigations to prove that anaerobic streptococci have a pathogenicity in the human being in such diseases as puerperal sepsis, peritonitis, and other suppurative lesions.

It will be most interesting to have a similar group of cases studied after they have received preoperative treatment with sulfanilamide or sufapyridine.

Wendell Long.

"Ovarian Autografting For Endometriosis." By Virgil S. Counseller, M.D., F.A.C.S., and Donald H. Wrork, M.D. Rochester, Minnesota. Surgery Gynecology and Obstetrics. February 1, 1940, Volume 7, Number 2, Page 220.

When there is extensive endometriosis, the surgeon is faced with the alternative of removing both ovaries or sufficient X-ray therapy to permanently suppress ovarian function. In either event, a surgical menopause promptly ensues and there is a high percentage of distressing symptoms.

These authors have reviewed the results of autografting of ovarian tissue and since 1936 have operated upon fifteen patients by the method of multiple implantation. In this scheme, multiple small pieces of undiseased ovary are implanted in the abdominal wall near the line of incision, usually exterior to the fascia of the rectus muscle.

They report that no case of endometriosis of the site of the graft has been encountered thus far and likewise that there has been no extension of the endometrial tissue in the pelvis.

"For three patients for whom treatment was successful, the amount of prolan and estrin excreted in the urine returned to normal values coincident with the enlargement of the nodes. Although some of the autografts may be insufficient to maintain normal values for estrin and prolan, they are sufficient to hold the symptoms of the menopause in abeyance, to prevent atrophy of the genitalia, to maintain certain feminine attributes, and to allow a milder, more natural type of menopause instead of an abrupt, severe, artificial menopause."

In only one of their small group of patients has it been necessary to remove the implanted ovarian tissue because of enlargement and painful cystic formation.

Comment: One of the most distressing features of the proper care of patients with extensive endometriosis is the fact that frequently the ovaries have to be removed in order to obtain symptomatic relief from the disease and yet by so doing a surgical menopause is induced.

This report of Counseller's is most encouraging and, in light of the desirability of avoiding menopausual symptoms and at the same time irradicating the pathological changes in the pelvis, it would certainly seem justifiable to employ the multiple ovarian autotransplantation in selected individuals where there was still undiseased ovarian tissue which could be employed for this purpose. This is particularly true since Counseller reports that there has been no change or extension in the endometriosis process in the pelvis and no endometriosis in the site of transplantation. While his is a very small series of patients, it must be considered as an important contribution.

Wendell Long.

"The Intravenous Use of Serum and Plasma, Fresh and Preserved." By Max M. Strumia, M.D., Joseph A. Wagner, M.D., and J. Frederick Monaghan, M.D. Bryn Mawr, Pa. Annals of Surgery, April, 1940, Vol. III, No. 4, Page 623.

In recent years the authors have made intensive study of the intravenous use of blood plasma in place of whole blood. Both serum and plasma have been used in infections, in the prophylaxis and treatment of nutritional hypoproteinemia and anemia in burns, in certain hemorrhagic and hemolytic diseases, in pre-eclamptic states, in liver disease, in chronic colitis, and finally in secondary shock.

The authors have not found it necessary to type citrated plasma prior to intravenous administration. As a rule the plasma is diluted with equal parts of saline or saline-glucose solution before injection, but it may be given undiluted. Plasma has proved its complete safety and absence from reactions in over 1,500 administrations. One important feature is that it can be given in large and repeated doses.

Citrated plasma, separated in the manner mentioned in the article, and lyophiled by the method of Flosdorf and Mudd has been regenerated with sterile water to restore its original volume and given intravenously to patients in quantities up to 100 cc. without reactions. It has even been given in five times concentrated solution at the rate of 110 cc. in six minutes without reaction. The method of choice for injections is the drip method, at a rate of about four to five cc. per minute.

It is unfortunate that in many reports, the terms serum and plasma appear to be used interchangeably. In this paper, the term serum means the fluid portion of the blood separated after clotting. Plasma is the fluid

recovered after centrifuging citrated blood. The intravenous use of serum, fresh or preserved by the lyophile process, is often followed by severe reactions. Such reactions have not been encountered when citrated plasma is employed, fresh or preserved. It is assumed that the difference is brought about by the process of fibrin precipitation.

Conclusion: "The intravenous use of citrated blood plasma without cross-matching is both safe and convenient. This applies to fresh plasma, or plasma preserved by either refrigeration at four degrees C. or the lyophile process. Serum, separted after clotting, may cause reactions, often severe, when intravenously injected, whether employed fresh or preserved by either refrigeration or the lyophile process."

Comment: Inasmuch as there are frequent circumstances under which serum or plasma is needed without blood cells, we feel that this is an important therapeutic contribution. In hospitals where blood banks are available, blood plasma can be obtained without a great deal of trouble. Within the past few weeks blood serum and plasma has been placed on the market commercially so that it may be used by the private practitioner very easily.

Warren Poole.

"Use of Whole Blood as a Means of Preventing Peritonitis and Adhesions." By Edward G. Joseph, M.S., M.D., M.R.C.S., Jerusalem, Palestine. Annals of Surgery, April 1940, Vol. III, No. 4, Page 618.

While caring for the victims of the riots of Jerusalem in 1936, the author observed that a surprising number of patients recovered who had had bowel injuries with fecal material free in the peritoneal cavity. The question arose in his mind as to the reason for these patients, who were operated upon under unfavorable emergency circumstances, to recover, whereas carefully conducted resections of the large bowel, in spite of utmost precaution, often end with fatal peritonitis. The essential difference between the two procedures is that the systematic resection of the bowel is conducted in a perfectly dry field, while the emergency operations were often undertaken in a field swimming with blood.

Experiments upon animals were carried out in an effort to learn whether the presence of the blood had had a beneficial effect and might have prevented the occurrence of peritonitis. The experiments were divided into three categories:

Group I: Abdomen opened, feces inserted, and wound closed. Twelve animals with one death.

Group II: Abdomen opened, feces inserted, sigmoid colon incised transversely and immediately closed. Twelve animals. All developed peritonitis.

Group III: Same as Group II plus the addition of fresh blood to the peritoneal cavity. Eight animals with two dying of wound infection. Several dogs of this group were later killed and the peritoneal cavity found to be absolutely free of any sign of adhesions.

The great difference in the percentage of mortality between Group I and Group II proves that contamination of the peritoneal cavity with feces is not in itself sufficient to produce fatal outcome.

The difference between Group II and Group III would serve to indicate that free blood in the peritoneal cavity increases the resistance of the peritoneum by about 75 per cent.

The author has applied this method of treatment in a small series of cases of peritonitis in human beings with very favorable results.

Comment: The author retells facts concerning the spectacular results we have all seen at one time or another after gunshot wounds have been repaired hurriedly. Whether or not we go so far as to inject blood into the peritoneal cavity, we might well be less careful in removing all the blood from the peritoneal cavity in our future operation.

Warren Poole.

"Ammonium Bicarbonate Secreted By Surgical Maggots Stimulates Healing In Purulent Wounds." By William Robinson, Senior Entomologist, United States Department of Agriculture, Washington, D. C., The American Journal of Surgery, New Series, January 1940, Volume XLVII, No. 1, Page III.

Referring to the resurrection and employment of the blowfly maggot treatment of chronic non-healing wounds popularized by Baer some years ago, the author has collected evidence which shows that the success of the so-called "maggot treatment" is "not due entirely to the scavenger action of the maggots in cleansing the wound." Baer, himself, is quoted as having "conceived the idea that in addition 'some biochemical exchange takes place between the maggot and the tissues of the patient.'" The author reports that later, in the Bureau of Entomology and Plant Quarantine, it was found that allantoin, a metabolic product present in the maggot secretions, stimulates the healing effects similar to those produced by the maggots, and it was demonstrated in the Bureau that urea possesses the same characteristics.

Additional investigations have not confirmed that allantoin and urea are altogether responsible for the success of the "maggot treatment." Neither one exists in sufficient quantity to justify the first conclusions.

It was finally demonstrated that in the so-called maggot treatment there was an abundant and reactive excretion of ammonia occurring first in the excretions as ammonium carbonate "which is unstable, and later as ammonium bicarbonate." "Maggots secrete comparatively large quantities of ammonium bicarbonate, along with other residue, directly into the wound, and this occurs without evidence of injury."

In 1937 there was a series of experiments in animals, chiefly dogs and rabbits, in which there were persistent discharging sores, chiefly on the back and legs. The treatment consisted of applications several times daily of 2 per cent solutions of ammonium carbonate or bicarbonate in sterile water. "The animals showed no discomfort and within two or three days the cleansing and healing effects formerly noted with allantoin and urea began to appear. No differences could be noted between the carbonate and the bicarbonate tests. The wounds, which had remained open and running before treatment, healed with the formation of very little scar tissue and in some cases with a return of hair to the surface. The writer tried the bicarbonate later in the treatment of some minor injuries in his own case and also in some of his associates. When first applied it produced a slight stinging sensation which soon disappeared. In subsequent applications this smarting became less noticeable, and healing appeared to be normal."

The next year the Bureau supplied concentrated sterile solutions to a number of physicians and surgeons. The solutions were diluted so that they would represent 1 per cent or 2 per cent of ammonium bicarbonate. In this strength—that is 1 per cent or 2 per cent solution —they were employed in various types of unhealed wounds. They were applied as 1 per cent or 2 per cent concentrations on gauze packs saturated with the material and in some cases they were irrigated into the wounds.

"The fact became evident as the treatments progressed that these two ammonium compounds are each able to promote healing in purulent and indolent wounds. No unfavorable effects were observed beyond some preliminary smarting in some cases."

"With this as a basis, treatments were then applied to a larger number of cases, including such purulent conditions as chronic osteomyelitis, diabetic and varicose ulcers, slow-healing abdominal wounds, abscesses, otitis media and infected lacerations. Ammonium bicarbonate, being more stable and less alkaline, was used throughout later tests."

"An improvement in the condition of the wound similar to that produced by maggots usually began to take

place after a few day's application of the treatment. The offensive odor decreased rapidly and the wounds became cleaner. Small areas of fresh granulations could be seen in the wounds and later a general development of this tissue usually occurred."

A number of case histories, covering various types of suppurative conditions of a chronic character, are included in this article, and, on the whole, it would appear that there is sound reason for regarding the local applications of ammonium bicarbonate, in the manner already indicated, should be regarded as a distinct and valuable adjunct in the treatment of purulent wounds.

It is stated by the author that ammonium bicarbonate is readily available commercially and is made on a large scale for various purposes. "It also has the advantage of being cheap and easily prepared for use. One-pound bottles can be purchased for about forty cents. At that price a liter of 1 per cent solution costs one cent. A stock solution is made by adding 10 grams of the bicarbonate to each liter of cold sterile water and stirring occasionally until dissolved. It goes into solution rapidly. If the containers are tightly corked, both the crystals and the solution will keep well."

It is reported that a number of surgeons have cooperated with the Bureau in the clinical employment of ammonium bicarbonate in different types of supperative wounds. The average strength of the solution employed has been from one-half of one per cent to as high as four per cent concentration.

In a foot-note, the writer lists the names of different surgeons in various parts of the country who have cooperated in the clinical trial of ammonium bicarbonate in suppurative wounds. Among them is Dr. H. D. Murdock, Tulsa, Oklahoma.

Comments: This report is based upon technical laboratory investigations and clinical trial. The reasoning is sound, and the clinical reports are quite convincing. In the judgment of this writer, it is a most important report, and indicates that the employment of solutions of ammonium bicarbonate promises to be an important adjunct in connection with tedious chronic suppurative processes.

I think that I should repeat that the application is made by placing gauze saturated with the solution over the suppurating area, and, sometimes, the installation of the solution into sinuses, and similar placed chronic suppurative areas more or less remote from the surface.

LeRoy Long, Sr.

EYE, EAR, NOSE AND THROAT

Edited by Marvin D. Henley, M. D.
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"Glaucoma Errors That I Have Made and That I Have Seen." Harry G. Gradle, M.D. Chicago, Illinois. Southern Medical Journal, May, 1940.

This paper gives much that is of practical worth to the ophthalmologist. On checking in the dispensary work at the Eye and Ear Infirmary it was found that only about three per cent of the glaucoma cases were kept under observation. This error has been corrected by discussing fully with the patient the character of his disease, what may be expected if he is kept under observation, controlled with myotics, etc., or what might be expected in the way of losing his vision if this was neglected. One is apt to do this with private patients but does not have or take time to do so with clinic patients. After this regime was inaugurated it was found that 96 per cent of these patients were returning regularly to the clinic for observation.

According to the author the difference in the classification of primary and secondary glaucoma is a matter of ignorance; we do not know the cause of primary glaucoma but do know the cause of secondary glaucoma. He thinks that the correct classification would be incompensated and compensated, or the absolute type. His idea is that glaucoma is not a disease but is a term that embraces a variety of diseases, that have different clinical manifestations, different etiologic factors and therefore require different treatment.

In a case of incompensated glaucoma, it is a matter of hours that count. Many factors enter into the decision of when the case becomes surgical but the author has set a more or less elastic rule which says that forty-eight to seventy-two hours is the maximum amount of time allowed for non-surgical treatment. Waste of time is the greatest mistake in acute incompensated glaucoma.

The method and type of operation to be employed is discussed very freely. As a rule it is not in the acute glaucoma that so many mistakes are made for it is obvious that something must be done quickly or the continued hypertension will result in blindness. In the compensated glaucoma, however, the condition is sometimes overlooked, which is excusable in the non-medical refractionist but not for the medical ophthalmologist. Every patient beyond the age of 30 years should be regarded as a potential glaucoma and checked carefully accordingly. The ophthalmologist is supposed to be the last word in ophthalmology.

The author does not hesitate to use mydriatics at any age. Tonometric pressure is taken before the instillation of the mydriatic and two hours after its instillation, which should pick up every potential case of glaucoma. What is meant by the normal intraocular pressure of the eye is discussed. What is normal to one is not normal to another, although there is a general rule for this. He cites a case of a man under observation from 1913 to 1934 who consistently had a pressure of 35 to 38 millimeters of mercury without any loss of central vision. The pressure is therefore not so important if there is not any damage done to the eye. The tension is not so important as long as the central vision, the central visual fields and the peripheral fields remain normal.

Too strong and too frequent use of myotics can do as much damage as not using any myotics at all. It may cause damage to the sphincter of the iris, to the nutrition of the lens, with resultant cataract formation, and to the ciliary body with resultant vitreous opacities. If more than a two per cent pilocarpine solution is required oftener than three times in twenty-four hours to maintain a uniform level of tension, then you have a surgical eye.

"Operation For the Cure of Postauricular Fistulae." Samuel D. Greenfield, M.D. Brooklyn, N.Y. The Laryngoscope, April, 1940.

After a preliminary discussion as to the pathology of postauricular fistulae, the author under nine different heads outlines the treatment for their cure.

OPERATION. 1. Revision of the mastoid cavity. The incision is made through the old scar. As much periosteum is saved as is possible during the elevation of the tissues. The tissues should be handled very carefully. The anterior flap is freed far forward, the posterior flap is freed for only a short distance. Now all diseased tracts are thoroughly exenerated along with all granulations. 2. Next is made a sliding flap for relief of tension of the sutures. An incision is made about one and one-half to two inches posterior to the mastoid incision. The anterior flag of this incision is elevated along with the periosteum by using an elevator until it appears in the mastoid cavity indicating that the flap is free and will slide easily. 3. The temporal muscle flap is prepared by carrying the original mastoid incision up over the temporal region for two or more inches. Bleeding, which is profuse is controlled. The muscle is freed from the underlying bone and a fan-shaped flap is cut with the pedicle attached anteriorly. This flap is pulled down into the mastoid cavity. This is held in place by suturing into the lower end of the wound. The point is stressed that this must be dry as well as the original position of the flap, lest the cavity fill with blood and infection set in. 4. The edges of the old scar are trimmed away allowing better coaptation of

the skin and underlying tissues. 5. The flaps are now prepared for suturing. Primary union is to be desired in the mastoid incision. Two layers of sutures are used. The deeper tissues are brought firmly together which tends to produce an abundance of skin which comes together easily. Skin clips are used over the bony defect. Too much pressure will cause sloughing and necrosis. 6. The posterior wound is closed with interrupted sutures of silkworm gut. Gaping is preferable to too much tension at this point. 7. A small rubber drain is inserted into the lower end of the mastoid wound. Another drain is sometimes used in the region where the temporal flap has been taken. 8. Vaseline gauze is used over the entire operated area to facilitate the next dressing. Firm pressure is used with gauze dressing and bandage to avoid collection of blood and exudate. 9. The first postoperative dressing is done on the third day. Clips and sutures are removed on the fifth day. Wounds are completely healed by the end of the fourth week.

"Bacteriological Studies of Acute Infections of the Middle Ear." L. Dell Henry, M.D. Hugh A. Kuhn, M.D. Hammond, Indiana. Annals of Otology, Rhinology and Laryngology, June, 1940.

Page reported a study of such cases done in the Manhattan Eye, Ear and Throat hospital occurring in one year (836 in number). He found many interesting facts in the study. Some of these are: Mastoidectomy was necessary in three types of infections only; the hemolytic streptococcus, pneumococcus Type III, and the staphylococcus; 30 per cent streptococcus, 23 per cent staphylococcus and 1 per cent pneumococcus. Mastoidectomies were done on 5.1 per cent of his cases. There were three times as many mastoids in those cases where the drum ruptured spontaneously as compared to those who had an early myringotomy. The seasonal variation was as follows: 36 per cent in the winter, 40 per cent in early spring, 13 per cent in the summer and 10 per cent in the fall. 468 cases total the authors are reporting.

All cases considered were acute—the average duration before being seen was eight days and none were older than seventeen days. There were 243 males and 225 females; 103 ear drums had ruptured spontaneously and 365 were opened. Streptococcus was found in pure culture in ninety cases (25 per cent); the staphylococcus was found in pure culture in 113 cases (32 per cent); the pneumococcus was found alone in forty-two cases (11 per cent). Others showed mixed infections. Of the whole series (468) only thirty-one (6.6 per cent) developed a surgical mastoiditis. All these recovered.

Page as well as the authors stress the importance of culturing the discharge (if myringotomy is done, culture from the knife) because it may indicate some prognostic value. The authors conclude that there was only 49 per cent of their series that would have benefited from sulfanilamide or sulfapyridine.

"Otosclerosis Treated With Sex Hormones." J. Bernstein and Leon Gillis. The Lancet, 1939, ii, 1368.

This is a treatise on true otosclerosis and is of unusual interest. The authors are of the opinion that there is a close connection between the gonadal internal secretions and otosclerosis. Several possibilities are mentioned among which is that there may be an imbalance between the male and the female hormones. If it is possible to determine which hormone is deficient, then this may be corrected by the giving of the deficient hormone. This then gives the patient afflicted with otosclerosis a possibility of improvement or arresting the progress of the condition without resorting to surgery or a medical treatment. The authors have been using their treatment as outlined long enough to either prove or disprove their theories. If medication arrests or improves the otosclerosis, then this must be an advance over the other medical treatments. Otosclerosis ordinarily produces progressively worse hearing. This series of cases reported show thirty-one improved and twenty five unimproved. All these cases were treated according to the author's method, i.e., injection of sex hormones, either homogenic or heterogenic. It is pointed out that much more work is necessary on this subject in order to find the best method of using these sex hormones. Research along this line may clear up the obscure etiology of otosclerosis. There is not any reference to any other research along this line in their article. A correlation of the same might be of value and interest. According to the authors, presbyacusis reacts favorable when the hormones used were heterogenic.

PLASTIC SURGERY

Edited by George H. Kimball, M. D., F. A. C. S.
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"The Treatment of Dupuytren's Contracture." Henry W. Meyerding, M.D.. Rochester, Minnesota. American Journal of Surgery, July, 1940.

The author has reviewed the history of this condition from the year 1832, at which time it was described by a French Surgeon, Dupuytren. It was noted at that time that: "A person attacked by this infirmity attached to his finger a weight amounting to 150 pounds (68kg), without influencing in the least the degree of flexion." Operative treatment therefore became recognized as the method of choice, especially with the advent of aseptic surgery. Koch, in 1933, considered that Dupuytren's contracture is a surgical condition; Sir William Ferguson, in 1842, had stated: "The fascia should be dissected out at once."

The author continues to review the literature and describe the different complications that have been encountered in conditions of this kind. He also classifies the deformity into Grades 1, 2, 3, 4. He claims to have seen 315 patients who have been afflicted with this condition and states that he has operated on more than 100 of them.

He gives the following summary of his experience.

It is evident from a review of the literature that conservative treatment, namely, stretching, heat and massage and the use of ointments and irradiation, has failed to prevent or cure Dupuytren's contracture. Following an experience of more than twenty years, during which time I have seen 315 patients who were afflicted with this condition and have operated on more than 100 of them, I have come to the conclusion that the operation of choice is surgical excision of the involved palmar fascia.

The result has been satisfactory in about 90 per cent of the cases. Subcutaneous section of the constricting bands of palmar fascia is a satisfactory method of treating certain patients. A carefully managed program of physical therapy is necessary. A combination of excision, splinting and physical therapy results in a useful functioning extremity.

Comment: This is one of the most extensive reports in regard to Dupuytren's contracture that has appeared in recent years. The references include a good portion of the literature on the subject. I believe that anyone interested in this condition should avail himself of this report.

ORTHOPAEDIC SURGERY

Edited by Earl D. McBride, M. D., F. A. C. S.
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"Polyostotic Fibrous Dysplasia. Report of a Case." Thomas Horwitz and Abraham Cantarow. Archives of Internal Medicine, LXIV, 280, 1939.

Lichtenstein and Jaffe, in 1938, employed the term "polyostotic fibrous dysplasia" to designate the condition which had been variously described in the literature as osteodystrophia fibrosa unilateralis,

osteitis fibrosa localisata, osteodystrophia fibrosa cystica generalistata, fibrous osteodystrophy, osteitis fibrosa disseminata, etc.

The authors' patient, a woman, aged twenty, was admitted to the Jefferson Medical College Hospital in 1937, complaining of pain in the region of the hips and increasing deformity of the thighs of nine years' duration. There was marked bowing of the thighs, particularly of the right, with shorting of the right leg. Roentgenographic examination showed many circular radiolucent areas in the pelvis, diffuse osteoporosis of the femora, tibiae, and fibulae, and changes in the bones of the feet. The serum calcium, phosphorus, and protein were not remarkable, but the serum phosphatase was elevated. Biopsy of the left femur revealed replacement of the spongy bone and marrow cavities by very cellular fibrous tissue, in which numerous areas of osteoid tissue and spicules of calcified bone were scattered. Exploration of the neck revealed no evidence of parathyroid tumor.

Although the roentgenographic findings were rather characteristic of osteitis fibrosa cystica dependent upon hyperparathyroidism, the early age of onset, the blood chemistry, the absence of parathyroid tumor, and the normal urinary excretion of calcium and phosphorus were strongly against this diagnosis.

"Protruded Intervertebral Disks with a Note Regarding Hypertrophy of Ligamenta Flava." J. Grafton Love. Jr. A.M.A. CXIII, 2029, Dec. 2, 1939.

During the years 1935, 1936, and 1937, only 1.8 per cent of over 300 patients seen at the Mayo Clinic by orthopaedic consultants for low-back pain and/or sciatic radiation underwent operation because of a diagnosis of protrusion of the intervertebral disc. The symptom complex presented by these patients was low-back pain with sciatic radiation, spasm of the lumbar muscles, loss of the normal lumbar lordosis, positive Lasegue and Kernig signs, sciatic tenderness, and decrease or absence of the tendo achillis reflex. If the total spinal-fluid protein is elevated and the roentgenogram shows narrowing of the fourth or fifth lumbar intervertebral disc, the diagnosis is almost certain. The author usually relies on confirmation by an opaque intraspinal substance as seen roentgenographically, but he has recently operated on eleven patients with proved prolapsed discs despite the fact that roentgenographic findings were negative. Hypertrophy of the ligamentum flavum is usually associated with protrusion of an intervertebral disc; in only twelve patients was there hypertrophy of the ligament without an associated prolapsed disc.

Surgical treatment is advised and consists in the removal of the excessive portion of the prolapsed disc through a small laminectomy wound, great care being taken in the handling of the nerves and in hemostasis. Postoperative treatment is simple; no casts or splints are used, and patients are allowed as much freedom as possible. Frequent neurological examinations are made, and, if there is an increase in the findings, a postoperative hemorrhage should be ruled out. One postoperative hemorrhage and one postoperative death are reported.

CARDIOLOGY

Edited by F. Redding Hood, M. D.
1200 North Walker, Oklahoma City

"Examinations of the Heart." — Published by the American Heart Association. The following article is the first part of a pamphlet published by the American Heart Association, under the direction of Howard B. Sprague, M.D., with the assistance of Harold E. B. Pardee, M.D., Samuel B. Scholz, M.D. and Harry E. Ungerleider, M.D.

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NOTE—This article contains the fundamental elements of cardiac investigation. Due to the limited circulation of these pamphlets it is well worth repeating here.

Examination of the Heart

The purpose of this article is to outline the clinical examination of the heart without the help of any instrument other than the stethoscope. The techniques of inspection, palpation, percussion, and asculation are used to answer a few definite questions. These questions are: (1) What is the size of the heart? (2) Are there any abnormalities in the cardiac sounds? (3) Are there any murmurs present in the heart, and, if so, what is their significance? (4) Is there any abnormality in cardiac rhythm? The proper answer to these questions will determine whether or not further investigation is necessary, such as X-ray and electrocardiographic study. It is often very much easier on examination to be sure of definite pathological changes in the heart than it is to be certain that no disease is present when the findings are equivocal.

Cardiac Size

The size of the heart is at times quite difficult to determine with accuracy by any method, particularly in obese or very muscular subjects, and when the chest is emphysematous, but the older procedures of palpation and percussion still yield very useful information. The position of the apex impulse can often be determined by inspection, and inspection should be checked by palpation and percussion. The left margin of the maximal apex impulse is the most accurate point for determination of the left border of the heart. When the left ventricle is enlarged, this impulse may be so diffuse that percussion dullness will be found considerably to the left of the impulse. In most cases, however, the left border of the heart by percussion and the left margin of the apex impulse will coincide. The left border of the heart at the apex should not lie outside the midclavicular line. This line, which is a perpendicular dropped from the midpoint of the clavicle, is a better landmark for comparison with the left border of the heart than either the nipple line or an arbitrary measurement from the midsternum. The apex is usually located in the fifth intercoastal space in adults, but often in the fourth space in children under the age of seven. Enlargement of the left ventricle occurs downward as well as to the left, particularly in aortic insufficiency, and the finding of the apex in the sixth interspace should make one suspicious of cardiac enlargement, even if the apex is not outside the midclavicular line. Infrequently, the apex is situated in the sixth interspace in normal subjects of asthenic habits with vertically placed hearts.

In percussing the left border of the heart, the percussion should be carried mesially from the axilla to a point of quite definite dullness. In contrast, when percussing the right border of the heart in the fourth interspace, the first slight change in percussion note as one nears the sternum should be considered as the right border of dullness. Two other percussion areas should be noted, that is, the left border of dullness in the third space, and the right border in the second space. In the normal heart, there should be no perceptible change in the percussion note in these areas until one reaches the sternum, but if definite dullness is found in the third left space, it is suggestive of enlargement of the right ventricle, or pulmonary conus, or, rarely, of the left auricle or its appendage. Dullness in the second and third interspaces is suspicious of an increase in the size of the vascular pedicle, especially the first portion of the aorta. An attempt at percussion of the so-called supracardiac or great vessel dullness is of little use unless the great vessels are considerably enlarged, as the normal aorta passes backwards in the chest and cannot be percussed. While enlargement of the left ventricle may be demonstrated reasonably well, enlargement of the other chambers cannot be detected on physical examination unless advanced changes are present. Therefore, further study by roentgen methods is frequently necessary, as for example, when one desires to know the size of the left auricle in suspected mitral valvular disease, or the width of the aorta when luetic aortitis is suspected.

Palpitation of the heart is of importance in two respects; first, in finding the maximal apex impulse; and second, in discovering thrills over the aortic and pulmonary valve regions. In the latter cases, a rough murmur will give a hint as to the possible presence of a thrill in these areas. It can be considered an accurate rule that a significant thrill cannot be palpated over the precordium unless there is an audible murmur. For this reason, thrills associated with murmurs, which are themselves diagnostic, are of relatively little importance. Such a thrill is the apical diastolic (presystolic) thrill occurring with the diastolic murmum of mitral stenosis. The continuous, often widespread, thrill felt with patent ductus arteriosus, gives only confirmatory evidence to the continuous murmur. Palpation will sometimes discover a slight extra thrust of the apex in diastole in gallop rhythm more readily than the ear may detect the sound by the use of the stethoscope. A forceful impulse to the left of the lower sternum, combined with abnormal dullness over the lower end of the sternum, is evidence of right ventricular enlargement.

Cardiac Sounds

Alteration in the suonds of the heart are often as important as cardiac murmurs. However, the determination of the normal intensity of the first and second sound for a given individual may be very difficult. It must be reached only after considering the thickness of the chest wall as altered by obesity, heavy musculature, and breast tissue, and the modifying influence of emphysema. In the timing of all heart sounds and murmurs, it is recommended that the examiner listen first at the base of the heart in order to fix in his mind the position of the sharp second sound in the cardiac cycle. He can then move the stethoscope gradually toward the apex and retain the position of this in relation to other sounds and mumurs. Some examiners are satisfied to time the first sound by the apex impulse or the carotid pulse. There is, of course, a slight delay between the first sound and the carotid pulse which makes timing somewhat difficult by this method if the heart rate is rapid.

Marked diminution of the intensity of the first heart sound at the cardiac apex in a person with a chest of ordinary thickness should make one suspicious of myocardial weakness or disease. Marked accentuation or a sharp quality of the first sound should make one listen at the apex very carefully for the late diastolic murmur of mitral stenosis. Splitting of the first sound may be a normal physiological occurrence but may also occur at times when bundle branch block is present due to asynchronism in the onset of contraction of the ventricles.

Accentuation of the aortic second sound is found with systemic hypertension, with atheroma of the aorta, and in some cases of luetic aortitis. Accentuation of the pulmonic second sound is found in patients in whom the pressure in the pulmonary circulation is increased (especially when the left ventricle fails or in the presence of mitral stenosis). Splitting of the second sound at the base of the heart is due to asynchronous closure of the aortic and pulmonary valves. A certain amount of splitting may be physiological, but definite reduplication of these sounds at the base suggests an increase in pressure in either the greater or the lesser circulation. The second aortic sound is often diminished or absent in aortic regurgitation. Its marked decrease or absence in association with a systolic murmur at the aortic area is important evidence of aortic stenosis.

In most children and in many young subjects, particularly those with thin chests and active circulations, the normal third sound may be heard shortly after the second sound in the region of the apex. This sound is of low pitch and intensity and is best heard by employing the bell type of stethoscope chest piece lightly applied to the chest wall, with the subject in the recumbent or left lateral recumbent position. It occurs at the time of rapid ventricular filling. The presence of a third

heard sound should be regarded with suspicion in persons of middle age or older. An accentuation of this sound, particularly in association with a first sound of poor quality, is the most common mechanism in the production of pathological gallop rhythm. The gallop sound can frequently be intensified by accelerating the heart with exercise. This accentuated sound in diastole may also be associated with a third impulse, as noted above, which can be seen and felt in the region of the apex. It is evidence of ventricular dilatation. Accurate appreciation of the timing and character of the third sound in normal individuals, and its accentuation in gallop rhythm, is a most important evidence of a skilled examination of the heart.

INTERNAL MEDICINE

Edited by Hugh Jeter, M. D., F. A. C. P., A. S. C. P.
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"Conferences on Therapy: Treatment of Blood Disorders: VI Pernicious and Other Macrocytic Anemias."

Note.—These are the actual reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with the collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students and visitors. The Journal of the American Medical Association, Volume 115, Number 1, July 6, 1940.

This article might be termed a dry clinic on the subject of macrocytic anemias. Fundamental points in the history, such as the discovery of the importance of liver therapy by Dr. Minot, the intrinsic factor in some way related to gastric juice by Castle, are described. Practical points in the diagnosis of the various types are brought out. Theories of the mechanism of the disease are mentioned. Questions and answers bring out nicely the practical treatment of Addison's anemia more particularly, and the therapy of the other macrocytic anemias are also to some extent discussed. The following is, in brief, an interesting summary of the treatment.

The objective of treatment then is the restoration of the antianemic principle, and this is done by the administration of liver or extracts of liver. There are effective by mouth, but by this route the extracts are only from one-fiftieth to one one-hundredth as potent as when given by intramuscular injection. Liver is rich in the extrinsic material as well as the finished antianemic principle and of course also certain large amounts of the various vitamins. The impression prevails that the crude extracts are more effective, especially in relation to the cord lesions, than are the more highly purified concentrates of the anti-anemic principle. In cases of marked involvement of the nervous system it is recommended that liver therapy be supplemented with ventriculin, a preparation of the hog's stomach containing both the extrinsic and intrinsic factors of Castle, which is very effective in producing a reticulocyte response and in maintaining the normal blood picture.

In a fully developed case of pernicious anemia an injection of 15 units of extract is given daily for the first week and then three times a week until the blood is normal. The dose may unusually then be reduced, most patients requiring only 15 units every one or two weeks. With cord lesions the treatment is more vigorous and the crude preparation extracts are employed, the attempt being made to maintain the red blood cells at five million or more. This treatment may be supplemented with the oral administration of liver and ventriculin, the latter in amounts of about 20 units a day with meals.

Iron is usually not required and should be withheld at least until after the effectiveness of liver therapy has been ascertained.

"The Present Status Of Thrombocytopenic Purpura, With Special Reference to Diagnosis and Treatment." By B. K. Wiseman, M.D., C. A. Doan, M.D. and S. J. Wilson, M.D., Columbus, Ohio. The Journal of the American Medical Association, Volume 115, Number 1, July 6, 1940.

This is an excellent review of the present status of this disease. Interesting diagnostic criteria are given as follows:

1. There must be spontaneous purpura and/or free bleeding from the mucous membranes.
2. The blood platelets must be substantially decreased in numbers, less than 100,000 per cubic millimeter of blood.
3. The clotting time and prothrombin time must be within normal limits.
4. The anemia and leukocyte count must not be out of proportion to the amount of bleeding.
5. There must be no pathologic cells in either the blood or the bone marrow.
6. There must be no recent history of the ingestion of drugs or the occurrence of those diseases known occasionally to produce thrombocytopenia.
7. There must be no appreciable enlargement of the spleen or lymph nodes.

A procedure for handling these cases is given and in this the indications for surgery and the choice of the cases for surgery are clearly set forth.

The authors conclude that no single theory adequately accounts for the production of the disease.

In the differential diagnosis, aspiration of bone marrow is necessary to rule out leukopenic leukemia, hyperplastic anemia, pernicious anemia and neoplasia. History, as regards consumption of neutropenia producing drugs, is essential. Splenectomy is pronounced the only measure known to restore the normal platelet count.

No case of symptomatic thrombocytopenia should be admitted to surgery.

UROLOGY

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"Sulfathiazole Treatment of Urinary Tract Infection." Ormand S. Culp, John Hopkins Hospital, Baltimore. Journal of Urology. July, 1940.

A new sulfanilamide derivative was tried clinically at the Brady Urological Institute. A great variety of infecting organisms were encountered and thirty patients in all were treated with this preparation.

Excellent results were obtained in sixteen cases wherein the drug was used for complete sterilization of the urine; poor results were noted in eight cases.

In six cases of acute pyelitis, symptomatic improvement was noted in all cases.

Toxic manifestations were observed in 23.3 per cent of the patients given the drug. They were all similar to those observed with the usual sulfanilamide preparations.

From this report, the conclusions were that sulfathiazole was an excellent urinary antiseptic if administered under favorable conditions and with great care. The incidence of toxicity makes it imperative to follow all patients at frequent intervals.

Comment: I have had only slight experience with this drug, insufficient to draw many definite conclusions, but my impressions reinforced with the reading of this article are that little more therapeutic benefit is present with sulfathiazole as over other types of like preparations. There are now undergoing experimental

trial many derivatives of these preparations, some more or less toxic than others but the therapeutic effectiveness seems not much materially increased over sulfanilamide in so far as their use in urology is concerned.

Sulfathiazole is yet an untried drug and requires much further observation before its exact therapeutic status is determined.

"Cutaneous Ureterostomy For the Relief of Intractable Bladder Tuberculosis." Edward L. Keyes, Journal of Urology, July, 1940.

The author reports on his experience with this operation citing brief case records of six patients on whom he has performed such surgery.

Its simplicity of technique give it much merit in the control of this distressing complication and Dr. Keyes considers it a surgical procedure that has more to offer than would be supposed. His six cases that he details seem to bear this contention out. All obtained relief from the pain and frequency and curiously enough it seemed to delay the progress of the disease in two instances. He ascribes this to better drainage of the kidney.

Comment: Certainly there is much that can be said for the procedure. Advanced tuberculosis of the bladder is one of the worst afflictions that beset mankind in so far as personal discomfort is concerned. These unhappy sufferers are deserving of any procedure that seems to offer relief from the pain they endure even if it be for only a few months.

Cutaneous ureterostomy is a simple operation and does satisfactorily side-track the urine from the bladder.

"The Prophylaxis of Pyeloureteritis Gravidarum." Herbert L. Trout, M.D., D. Scott Bayer, M.D. and Charles M. McLane, M.D. American Medical Journal. July, 1940.

This is an excellent and most timely article that details the management of infections of the urinary tract in pregnancy. It particularly stresses the preventive aspect of these infections and cites statistics to prove that through proper care the incidence of this disease can not only be decreased 50 per cent but, in addition, the serious complications resulting from pyeloureteritis may be practically eliminated.

Essentially the routine of management resolves in a strict appraisal of the patient through careful history as to their predisposition to the disease and thereafter throughout the prepartum period a meticulous examination of the urine for the presence of infection. If infection is present, urinary antisepsis is begun and continued to a varying degree in an attempt to maintain sterile urine. The drug utilized for this purpose is sulfanilamide.

Comment: I am happy to see such an article presented to the profession as it brings to the fore an aspect of prenatal care not infrequently neglected i. e., urinary tract infection. Pyelitis is one of the most common and distressing conditions that affect the pregnant patient. Too often urine examinations are made solely to determine the presence of albumen and no attention paid to the presence of infection. Every woman in the early months of her pregnancy should have a thorough urine examination made from a catherized specimen to determine whether bacilluria or pyuria is present. Appropriate medication instituted early in such instances where infection is actually present will prevent much of the morbidity that so often follows.

Cancer Institute to Publish Journal

Announcement has been made by the National Cancer Institute, Bethesda, Maryland, of the forthcoming publication of the Journal of the National Cancer Institute. The magazine will be published bi-monthly, and will contain articles by members of the staff of the institute, which is a unit of the National Institute of Health,

DIGITALIS FOR OBESITY

"Too much publicity has apparently been given to the reports of a method of weight reduction which involves administration of digitalis for suppressing the appetite," *The Journal of the American Medical Association* says.

"The underlying thesis that the food intake determines the weight is, of course, correct; definite suppression of appetite will ordinarily be followed by loss of weight. Moreover the use of ipecac and similar drugs may result in a loss of appetite even before nausea and vomiting are manifested. Whether or not digitalis can produce a loss of appetite without harmful effects is more debatable. The work of Hatcher and Weiss in particular has shown that the nausea produced by digitalis is a reflex the sensory organs for which do not appear to be located in the heart. Thus the type of nausea which digitalis produces is at least partly due to factors other than gastric irritation. Indeed, nausea and vomiting are toxic symptoms of digitalis and constitute a warning to decrease or stop the administration of the drug.

"The observations reported by Bram on this method of reducing body weight (wherein he reports effective results) have attracted the attention of some writers for the public. Confirmatory evidence for his views is lacking. The method cannot be generally recommended unless its efficacy and safety have been thoroughly demonstrated by carefully controlled observations. At present the use of this technic is clearly in the experimental stage and uncontrolled use should be discouraged."

Ether Used For Dissolving Gallstones

Certain gallstones can be dissolved by ether, C. M. Burgess, M.D., Honolulu, T.H., declares in *The Journal of the American Medical Association.*

Such stones, he says, must be of pure cholesterol (fatlike substance) or fragments of stone bound together by cholesterol. Furthermore, these stones must be so situated that they are available to a direct bath in ether. The stone made up of fragments pieced together by cholesterol when bathed with ether will become fragmented and the pieces if not too large will then be passed.

With these restrictions it is readily seen that only a few patients with gallstones will lend themselves to this treatment. Dr. Burgess says that the procedure appears heroic but, he continues, "it has been done in enough instances to make one feel safe in its use when done properly."

Solubility is not a natural characteristic of most gallstones.

Surgical intervention of the biliary tract, as of no other portion of the human body, places on the surgeon the greatest responsibility. It requires the utmost in surgical judgment, operative skill and postoperative care, thus making dissolution of gallstones a most specialized but welcome procedure in a few cases.

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